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ABSTRACT

The results of computer simulations of each of 17 variations on 4 prototypical desegregation plans applied to the Los Angeles Unified School District (LAUSD) are reported in this document. The prototypes, each representing a category of proposals offered at one point or another during the litigation of the desegregation issues are: (1) an all-voluntary plan; (2) a mixed voluntary-mandatory plan; (3) a multi-ethnic plan (in which students of one race or ethnicity would never comprise more than 20% of a school's enrollment); and (4) an area resource utilization plan. Part 1 describes the purpose of the project (which was begun at the direction of the Superior Court of California) and outlines study questions and major constraints on the simulation process. Part 2 summarizes the methods and analytic constructs by which the projections were prepared, and Part 3 describes the demographic backdrop against which the simulation was conducted, including a projection of the racial/ethnic profile of the LAUSD that would exist if the question of a court-ordered desegregation plan involving mandatory pupil transportation had never arisen. Parts 4-7 present the projections for each variation of each prototypical plan. Findings are summarized in Part 8, and ways of improving the data base upon which the projections are based are outlined in Part 9. (KH)

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DESEGREGATING THE LOS ANGELES UNIFIED SCHOOL DISTRICT: FIRST SIMULATION SERIES

Volume I

Prepared for The Superior Court
of the State of California

HAMILTON, RABINOVITZ & SZANTON, Inc.
Los Angeles, California
November, 1979

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November 16, 1979

Honorable Paul Egly
Judge, Superior Court
Courthouse
Los Angeles, California 90012

Dear Judge Egly:

Herewith our initial responses to the questions put to us by the Court for computer-aided analysis. We hope that they will be useful in clarifying some of the factual issues involved in the litigation concerning desegregation of the Los Angeles Unified School District.

As promised, our work includes no policy view or recommendation, explicit or implicit. It may well be that the most important product of the project is the technical capacity, which is now in being, to simulate the results of a wide variety of desegregation plan prototypes and variations. The future use of this capacity is entirely subject to the Court's instruction.

This work would have been impossible without the cooperation of many individuals and organizational units within the Los Angeles Unified School District. They have our thanks and our admiration.

We and our colleagues on the project staff are also grateful to you for the opportunity to try to harness the simulation power of the computer to the cause of dispassionate analysis of a social problem of great significance and complexity. If we have accomplished anything of utility, its roots are in your original charge to us.

Sincerely,

Edward K Hamilton — Francine F. Rabinovitz

Edward K. Hamilton
Project Co-Director

Francine F. Rabinovitz
Project Co-Director

EKH:sld
Enclosure

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DESEGREGATING THE LOS ANGELES UNIFIED SCHOOL DISTRICT: FIRST SIMULATION SERIES

I. THE TASK

Introduction

This document reports the results of computer simulation of each of 17 variations on four prototypical desegregation plans applied to the Los Angeles Unified School District. Each prototype represents a category of proposals offered at one point or another during the litigation of the desegregation issue in the California courts. The simulations have been prepared at the direction of the Superior Court of the State of California that maintains continuing jurisdiction of the case.

It is expected that this will be the first of several series of simulations. The prototypes, which can be expressed in an infinity of possible variations, do not purport to include the full range of plausible assumptions for each of the myriad of variables involved. The computer programs that generate the simulations, which are the first full-scale school desegregation projection instruments ever developed, are designed to permit these assumptions to be varied, so that subsequent simulations can incorporate whatever different parameters may be of interest to the court. This process of refinement, moving from prototypes representing general categories of proposals to more fine-tuned plans, provides, in our judgment, the most sensible process for informing decision-makers of the likely practical consequences of the desegregation options considered.

Central Questions Addressed

The consultants' assignment has been to respond to four basic questions put by the Court:

1. What would have been the school-by-school results of the underlying demographic shifts in the LAUSD area if the question of mandatory pupil transport had never arisen?

2. What would be the likely school-by-school distribution of LAUSD pupils during the period 1980-1985 if desegregation were pursued, beginning in September 1980, through:

(a) An all-voluntary plan?

(b) A mixed voluntary/mandatory plan of the type that is now in effect in the District?

(c) A plan in which at least three race/ethnicity categories are recognized in the definition of a desegregated school, and no school is permitted to contain markedly more pupils of one category than of another? (This is defined as a situation in which pupils of the most numerous race/ethnicity will never number more than 20% more than the combined total of the others.)

(d) A plan that makes use of underemployed resources in surrounding school districts when this approach is demonstrably cheaper and less burdensome on the LAUSD pupils than would be an intra-District approach?

3. Within each plan, what would be the likely school-by-school effects of changing assumptions about such key variables as white flight, limits on acceptable travel time, grade coverage of mandatory programs, the sequencing of voluntary and mandatory pupil assignment, and the like?

4. How would the results of the plans (and the variations within each plan) compare with respect to the following cross-cutting characteristics?:

(a) The number of schools that, in each year of the period, would fall into the "Desegregated" and "Segregated" categories, and, within the Segregated category, those that would be Racially Isolated White Schools (RIWS) or

Racially Isolated Minority Schools (RIMS). (Except in the case of the multi-ethnic plan, the "Desegregated" category is to be restricted to those schools in which neither White nor Combined Minority enrollment exceeds 60% of total enrollment.)

(b) The average racial/ethnic composition of each grade and each level in the LAUSD system.

(c) The number of pupils at each level that would be transported for desegregation purposes to schools beyond those nearest them by the LAUSD during each year of the projection period, with the number mandatorily transported broken out as a subtotal, and the number voluntarily transported divided into those participating in Permit with Transportation (PWT) programs and those attending Magnet schools.

(d) The average travel time experienced by District-transported pupils, again with the mandatorily transported segment broken out.

(e) The marginal (i.e., extra) costs reasonably attributable to desegregation activities, itemized to the degree that available data permit.

(f) Any discernible effects upon bilingual programs.

Major Constraints on the Simulation Process

The reader should be aware of a number of factors that necessarily limit the scope and accuracy of the projections. Some of these inhere in the particulars of the LAUSD situation and others reflect the state of the simulation art. Taken together, in our view, they bound but do not basically impair the utility of the forecasts. However, a brief discussion of each type of limitation is provided below so that the reader may form an independent judgment.

1. Time Constraints. This work was initially ordered on July 21, 1979. In order to fit within an orderly deliberation and decision sequence, the Court requested that this Report be submitted on or before November 15 of the same year. This schedule permitted a total of 118 days to:

-- Search out major data files and many minor ones from a wide variety of sources, analyze these files, convert them (if necessary) into machine readable form, and mount them on the computer.
-- Digest and search the enormous accumulation of documents that have collected over 15 years of litigation to assemble the most representative group of composite prototypes. These prototypes were then expanded in number and revised in content in response to comments from the Court and the parties and intervenors.
-- Develop nine entirely original projection submodels (each dealing with a key variable) and translate them into computer language.
-- Test and debug the programs.
-- Run and rerun the programs for each prototype. (Each of the 17 variations occupies about 500,000 bytes of core memory, and requires about 1 1/2 hours of running time on the District's computer.)
-- Analyze the results, and convert them into a comprehensible reporting format.
-- Print and reproduce the resulting Report.

This rate of speed, although completely justified from the standpoint of the decision sequence, inevitably imposed limits upon the degree to which data cleaning, program refinement, and result analysis could be engaged in.

2. Data Base Constraints. Since no simulations of this kind had ever been attempted in Los Angeles (or in any other school

district of major proportions), the data base had to be constructed from materials not expressly designed for the purpose. Time did not permit the gathering of new data, and gaps in the available base quickly became evident, some of which have required the introduction of less sensitive bases for projection than would have been preferrable. The major constraints are as follows:

- Unlike some smaller districts, LAUSD has no data file organized by pupil. System-wide data are maintained by school and by grade. Thus, these are the units in which the entire analysis must be carried out; there is no basis for projecting the effect of any plan on any particular pupil unless his entire grade is affected in the same way.
- The LAUSD racial/ethnic survey data are often inconsistent with figures from the United States Office of Civil Rights which purport to reflect the same reality.
- Racial and ethnic data for the PWT program are available in reliable form for only two years. Moreover, PWT participants, almost all of whom are Minority pupils, have not been separated in the machine readable records of the many voluntary transfer programs operated by the District until very recently. It is impossible, therefore, to "put back" PWT pupils into their home school areas for analytic purposes for any year prior to 1977-78. (This weakness is somewhat offset by the fact that the program was much smaller in prior years than it is today.)
- Data on pupil flight from the District, associated with mandatory transportation programs, are necessarily available only for the two school years (the second of which is not yet half over) during which a mandatory plan has

been in effect.

-- There exists no machine readable file of average travel times between all neighborhood bus pickup points and all District schools, or even between all schools and all other schools. The only usable file is a California Department of Transportation (CALTRANS) grid that shows the on-peak and off-peak time required to travel from the centroid of each of the 1,285 zones into which the Los Angeles area is divided to the centroid of any other zone. Although this is a much more systematic projection instrument than any the District has utilized in its planning, it is certain, even when corrected by a constant allowance figure, to be less than perfect as a forecaster of the average time spent by pupils on buses that trace circuitous routes through neighborhood pickup points.

-- Ethnicity figures, particularly for Hispanics, always contain some margin of error because surnames and even visual checks may mislead.

-- There are no currently available data on the unutilized capacity of schools in districts surrounding LAUSD. Therefore, capacity can only be estimated by taking a base year, assuming that the school was operating at capacity in that year, subtracting current enrollment from that in the base year, and counting the difference as unused capacity.

-- The LAUSD has developed no systematic expenditure projection model, nor does it have a cost accounting system that makes possible reliable estimates of the net marginal costs of desegregation. Cost forecasts must, therefore, be rough calculations applied to only the largest elements of anticipated marginal expenditures, ignoring those that seem likely to be small. This necessarily somewhat understates cost effects.

-- There has been no time for the consultants to conduct independent verifications of the data that are available, although verifications performed by others have been taken into account.

This list of shortcomings in the data base may leave the impression that the LAUSD is unusually bereft of current, computerized information, as compared with other large school districts. This impression is false. Our experience suggests that the LAUSD is relatively well-endowed by a national standard of comparison. The correct impression, in our view, is that most major school administrations lack the quickly retrievable information base upon which to forecast the effects of policy options.

The most visibly serious of these data problems is inability to have the computer "put back" PWT participants into their home school areas in years before 1977. This problem -- which can be ameliorated only by extensive data cleaning and translation into machine readable form of the year-by-year voluntary transfer lists at each major participating school -- creates anomalies in projections of demographic change in the enrollments of the schools in which Minority participants in PWT were concentrated in those years. We have sought to minimize these problems by basing demographic projections on actual figures through 1975-76, when the PWT program was quite small by present standards. Nevertheless, the base figures for a few schools where PWT pupils were concentrated , most of them predominantly White and located on the West side of the District, show an undetermined number of Minority pupils as residents of the school area. When projected forward, this weakness in the data results in unrealistically high estimates of Minority pupils likely to be in these schools in future years. In desegregation plan variations involving mandatory linkages between schools, these distortions produce anomalous pairings in some instances. This result, while regrettable, seems preferable to the distortion that would result from eliminating all transferees -- many of whom were not Minority pupils and were not transferred under PWT. If desired, this difficulty can be at least partially overcome in later simulations.

3. Uncertainties About Physical Capacity. The physical capacity of a school is not an easily establishable fact. The District now has at least one school with an official capacity of 800 and an actual pupil population of about 2,000. On the other hand, because enrollment has fallen in recent years, many schools have several hundred fewer pupils than they contained in former years. Our research concludes that there exists no reliable, school-by-school data file of actual capacity.

Yet, sensible projections require that capacity exert a limitation upon the projected pupil population of each school. Incorporated into the projections, therefore, are the following:

- The most recent LAUSD listing of the physical capacity of each school; as modified by
- Any number of additional pupil spaces that have actually been provided in the school in any year since 1966-67.

Thus, the capacity limit is placed at the highest number of pupils that the school has actually contained, or at the school's listed capacity, whichever figure is larger.

This limit is placed in this way in this first simulation series for two reasons. First, the number of pupils that have actually attended a school is a fact, not an estimate. Second, the proposition that the LAUSD could make any adjustment in response to desegregation needs that it has in the the past made in response to enrollment pressures seems as plausible an assumption as any other. It should be understood, however, that this implies that the District could or would reestablish augmented capacity (e.g., through installation of portable classrooms) if a desegregation plan could best be pursued through their use.

The effect of this assumption is that the projection model frequently places many more pupils in some schools than are now present or have been present during the past few years. Many people knowledgeable of the situation of a particular school will not be accustomed to thinking of it as having the capacity that is attributed to it in these projections. By making this attribution the model does not suggest that the school should be of the size projected, but only that it has been that size at some time in the years since 1966.

4. Assumption of Static Structure. Implementation of any desegregation plan would certainly involve at least the possibility of changing the structural configuration of the LAUSD by altering such factors as building uses, school attendance boundaries, and grade structures. However, time has not permitted us to add assumptions about variations in these parameters to the many other variables being treated. Incorporating such assumptions must await more detailed treatment of a chosen range of possible plans within a shorter list of general categories. For this simulation series, these factors are assumed to be fixed in their current positions. This necessarily introduces some inaccuracy into the school-by-school projections, particularly in the later years of the period, when authorities will presumably have had the lead time necessary to plan and carry out structural adjustments.

5. State of the Art Constraints. No computer program can take into account all of the factors that must and will be considered by the decision-makers operating in a complex field of public policy. Thus, any simulation can be no more than a directional aid, an instrument that indicates what would occur if clear, consistent decision rules were followed to the letter at every point of choice. In fact, of course, policy makers are will aware that a single, rigid set of rules applied regardless of circumstances yields a very imperfect set of results. Therefore, they exercise judgment and make amendments in or exceptions to rules when conditions require them. The computer can only do this when such condi-

tions can be described sufficiently rigorously to be translatable into mathematical terms. But many very real and significant conditions do not fit this description. It is certain, therefore, that the computer's forecast will fail by some degree to replicate the decisions that actually will be made within the framework of any general desegregation policy.

The computer's simulation capacity is also bounded by the fact that it must perform operations in sequence, not simultaneously. It must begin somewhere, conduct a given operation, then proceed to another, and another, and so on. In the current instance, for example, it must first pair schools that can thus be desegregated within the constraints and then form clusters for the same purpose from those that remain. It cannot pair and cluster at the same time. Moreover, sheer complexity imposes some limits upon the machine's capacity, at least in the time frame permitted for this project. For example, clusters of more than three schools are not simulated herein and could not be without excruciatingly complicated and time-consuming programming at a cost that seems inappropriate to the prospective benefit. Nevertheless, it is quite possible that decision-makers faced with the problem of creating workable pairs and clusters may well devise one or more four-school clusters, using knowledge and judgment criteria that go far beyond what has been fed in to the computer.

Finally, it should be pointed out that the computer's knowledge is all historically-based, and its concept of an optimal result is much more narrowly defined than would be the actual standard utilized. Projections based on history are always hostage to a major discontinuity, after which people simply behave differently than they formerly did. Narrow definitions of optimality always overlook qualitative factors (e.g., the human relations between two school principals, two parents' groups, or two student bodies) that may bear heavily on the issue in the mind of any knowledgeable decision-maker. It is up to the decision-maker using the tools that the computer provides to correct for these unavoivable constraints upon all electronic simulations.

Structure of the Report

The remainder of Volume One of this Report consists of eight Parts, numbered II through IX. Part II summarizes the principal components of the overall projection program. Part III projects the racial/ethnic profile of the LAUSD that would exist if the question of a court-ordered desegregation plan involving mandatory pupil transportation had never arisen.

Parts IV through VII present, respectively, the summary results of two all-voluntary variations (Part IV), eight voluntary/mandatory variations (Part V), one multi-ethnic variation (Part VI), and six area-wide resource utilization variations (Part VII). Chart 1 presents brief synopses of the variations to aid the reader in identifying and distinguishing them. The same reporting format is used for each prototype, and the explanatory text varies only where some unique feature justifies a variation in treatment.

Part VIII offers summary observations with regard to comparison of the full range of prototypes simulated. Part IX suggests needed improvements in the data base and discusses the range of possible further simulations.

The subsequent Volumes of the Report are comprised of the school-by-school computer printouts corresponding to each prototype and variation. They are not being printed for mass distribution, and are made available only by permission of the Court.

At no point in these discussions is any normative conclusion reached, nor is any policy recommendation offered. Pains have been taken to avoid any hint of favor to one or another prototype, both in the structuring of the research and in the reporting of its results. Our objective is to provide factual and analytic material that may be viewed and utilized from any position on the spectrum of opinion.

Later Supplement on Costs and Effects on Bilingual Programs

As noted above, District cost data and estimation procedures do not lend themselves to easy or confident forecasting of

CHART 1

SUMMARY OF PLANS AND VARIATIONS

ALL VOLUNTARY PLANS

A. Pupils who left in 1978-80 all return.

B. None of pupils who left in 1978-80 return.

VOLUNTARY/MANDATORY PLANS

C_1 Pupils enroll in Magnets and PWT first. Others are assigned to Pairs and Clusters. Only grades 4-8 are affected. Travel time is up to 30 minutes.

C_2 Same as C_1 except travel time is up to 45 minutes.

D_1 Same as C_1 except two grades are added each year. Travel time is up to 30 minutes.

D_2 Same as D_1 except travel time is up to 45 minutes.

E_1 Same as D_1 except pupils enroll first in magnets, then are assigned to Pairs and Clusters, then those remaining may volunteer for PWT.

E_2 Same as E_1 except travel time is up to 45 minutes.

F_1 Same as E_1 except all pupils are first assigned to Pairs and Clusters, then to Magnets and PWT.

F_2 Same as F_1 except travel time is up to 45 minutes.

MULTI-ETHNIC PLAN

All schools desegregated by bringing them to a bi-ethnic or multi-ethnic pattern. No voluntary programs permitted. Average travel times similar across racial groups.

AREA RESOURCE UTILIZATION PLANS

G_1 After intra-district plan D_1 is pursued, pupils are transported to area schools within 30 minutes travel time. No mandatory transportation originates in surrounding districts.

G_2 Same as G_1 except intra-LAUSD plan used is D_2

H_1 Same as G_1 except intra-LAUSD plan used is E_1

H_2 Same as H_1 except intra-LAUSD plan used is E_2

I_1 Same as H_1 except intra-LAUSD plan used is F_1

I_2 Same as I_1 except intra-LAUSD plan used is F_2

the marginal cost effects of desegregation plan variations. Neither the available data not the cost modelling procedure can currently be computerized. Past reporting of desegregation costs may have been affected by the fact that all incentives in the current state financing arrangement encourage imputation of all possible outlays to this activity. Reliable forecasting of the marginal expenditures reasonably attributable to the desegregation variations simulated herein requires an arduous, non-computerized examination of each major cost element and an individualized forecasting operation focused on the evolution of each. This has not been possible within the time constraints. Therefore, a supplemental Report on projected costs will be issued at a later date.

An important element of the cost question derives from the effect of each of the variations on the need to provide bilingual instruction. This topic will be treated in the cost supplement.

II. METHODS, PRINCIPAL DECISION RULES, AND CAVEATS

This Part summarizes the methods and analytic constructs by which the projections were prepared. It is written in lay language, and discusses only the most important decisions implicit in the technical design of the simulation process. Readers with professional interest and technical expertise in the field may wish to contact members of the research team if more detail is desired.

The decision rules used in the models are, like the parameters applied, subject to change for later simulations on instruction from the Court. However, it is usually more complicated and time-consuming to change them. Moreover, they usually refer to historically-based relationships between factors that would seem only subject to change if one finds a more persuasive rationale for a different relationship than has been posited, and if the relevant data file can be adapted to work within the new approach.

Our major effort in this Part is to make the choices hidden in the models and programs as explicit as possible so that the Court can determine whether subsequent simulations should be performed using the same analytic tools or using adjusted ones.

Research Design and Methodology

The simulations are accomplished through the sequential application of a series of sub-models, each of which is given a short label. Each is summarily described later in this Part.

One sub-model, labeled DEMOGRAPHIC, appears in every simulation. It estimates the number of pupils, by race/ethnicity and grade, who would attend each LAUSD school in the absence of any desegregation plan. This sub-model takes account of the shifting population context within which desegregation plans must operate -- the influences of migration patterns into, out of, and within the LAUSD, changing birth rate patterns, and so forth --

but does not reflect families' responses to court-ordered desegregation activities.

A second sub-model, called FLIGHT, estimates the numbers of pupils, by race/ethnicity and grade, who will withdraw from the LAUSD, either enrolling in a private school or moving to another school district, in response to a mandatory desegregation plan. It is assumed that no pupils will flee as a result of voluntary desegregation efforts; the FLIGHT sub-model, accordingly, is included in the simulation of any plan which has mandatory elements, but not in simulations of all-voluntary plans. However, the all-voluntary plans do raise the question whether the pupils who have already fled would return in 1980 if mandatory transportation were ended. For this reason, two all-voluntary prototypes are simulated (shown in Part III as Plans A and B, respectively), one of which assumes that all of these pupils will return and the other assuming that none will come back.

Other sub-models are employed in simulations as required by the prototype under consideration. The simulations of the all-voluntary plans, for example, include sub-models which estimate the number of pupils, by race/ethnicity and grade, who would attend Magnet schools or transfer to other regular schools via the PWT program. The simulations of the mixed voluntary/mandatory plans include, in addition to the MAGNET and PWT sub-models, sub-models which assign schools to pairs or clusters or midsites and sub-models which estimate the number of pupils, by race/ethnicity and grade, who would be mandatorily transferred from one school to another. The tri-ethnic (which we will hereafter call multi-ethnic) plan, on the other hand, provides that no voluntary transfers will be permitted; the MAGNET and PWT sub-models are, therefore, not used in the multi-ethnic simulations. And, instead of the PAIRS/CLUSTERS/MIDSITES and MANDATORY TRANSPORT sub-models, the multi-ethnic simulation uses a MULTI-ETHNIC sub-model which estimates the number of pupils, by race/ethnicity and grade, who must be mandatorily transferred from one school to another to bring about the racial/ethnic balance in every LAUSD school that is prescribed by that prototype. Some of the area-wide resource utilization simulations first employ the MAGNET, PWT, PAIRS/CLUSTERS/MIDSITES, and MANDATORY TRANSFER sub-models to estimate the effects of intra-LAUSD desegregation efforts, and then apply an AREA-WIDE TRANSPORT sub-model to estimate the numbers of LAUSD pupils, by race/ethnicity and grade, who would be mandatorily transferred to schools outside the LAUSD boundaries. Others use a different sequence, as called for in the variations being simulated.

The particular sequence in which these sub-models are applied varies from simulation to simulation in accordance with the specifications of the plans under consideration. The procedure always begins using DEMOGRAPHIC to project the number of pupils available to attend each school if no desegregation plan were in force. If the plan being simulated includes mandatory elements, FLIGHT then estimates the number of pupils who would withdraw rather than be exposed to mandatory transfer. The FLIGHT estimates are subtracted from the DEMOGRAPHIC projections to estimate the number of pupils who would actually appear at each school. In some cases, we then estimate voluntary transfers via the MAGNET or PWT sub-models, or both, as specified by the plan, and then use the MANDATORY TRANSFER or the MULTI-ETHNIC sub-model to mandatorily assign pupils, depending on the plan under consideration. Other plans call for mandatory transfers to be effected before voluntary transfers are allowed. The simulations of area-wide resource utilization plans always assume that mandatory transfers to non-LAUSD schools (estimated in the AREA-WIDE TRANSPORT sub-model) follow after intra-LAUSD mandatory transfers, which are estimated in the MANDATORY TRANSFER sub-model.

Schools are assigned by the models to Pairs, Clusters, or Midsites in the mixed voluntary/mandatory plans and in the area-wide resource utilization plans in the spring of 1980 (using 1979-80 data) and again in the spring of 1983. This assignment schedule represents a compromise between annual re-pairing and clustering, and a single assignment at the outset of the period that would remain in force for the full five years. So rapid is the underlying demographic change in pupil mix that annual reassignments would create and abolish large numbers of Pairs and Clusters each year, leading to very large discontinuities in the educational experience of many pupils. On the other hand, a single pairing/clustering at the outset would, for the same reason, be likely to generate mandatory transportation of a very large number of pupils in the latter years of the period which would no longer accomplish desegregation of either sending or receiving schools. In an attempt to balance these conflicting concerns, it was decided to perform the reassignments twice during the five years -- once at the outset and again after the third year of operation of the plan.

These assignments are made without any effort to sustain or to abolish the 1978-79 assignments of schools to Pairs, Clusters, or Midsites. This reflects two considerations. First, the instructions to the consultants were to structure the Pairs/Clusters/Midsites so as to generate the maximum number of Desegregated schools possible within the travel time and other constraints. To the degree that current groupings are not suggested by the model, they do not meet this test, in that more schools can be desegregated by using the pupil populations that they contain in different patterns. Second, demographic shifts since the 1978 assignment have already made some of the current groupings obsolete in the sense that they no longer desegregate the schools involved. However, although no special efforts are made to preserve the current pairings, the Pairs/Clusters/Midsites resulting from each of the prototypes that use them are presented in Parts V, VI, and VII in such a way that the reader can trace how long each grouping survives during the interval 1979-85.

The assignments themselves are based on the estimated distribution of pupils by school, with mandatorily transferred pupils figuratively "put back" in their home schools, and, depending on the plan under consideration, voluntarily transferred students included in either their home school or the school to which they are transferred. Thus, the PAIR/CLUSTER/MIDSITE sub-model used to calculate the 1980 assignments of schools to Pairs, Clusters, or Midsites follows the 1979 DEMOGRAPHIC and FLIGHT estimates, precedes the 1979 MANDATORY TRANSFER estimates and, depending on the plan being simulated, follows or precedes the MAGNET and/or PWT sub-models.

Every simulation is performed on an annual basis. Each year begins with the DEMOGRAPHIC projection and then an estimate of the amount of flight to be expected in that year, given the mandatory elements of the plan. The models then estimate the number of pupils who will be transferred, voluntarily and/or mandatorily, and, in 1980 and 1983, reassign schools to pairs, clusters, or midsites for the forthcoming year. In each year, these estimates and assignments are recalculated in the light of the DEMOGRAPHIC projections, net of flight, for the year in question. Thus, in every simulation the estimated numbers and distributions of pupils remaining in their home schools, as well as those voluntarily and mandatorily transferred, change from year to year in accordance with the changing demographic context within which the simulated plan is operating.

Each sub-model contains two elements: 1) a set of parameters which reflect the assumed response of pupils (or their families) to various stimuli; and, 2) a set of rules for applying the parameters to the data at hand in order to derive estimates of the number of pupils affected in a particular way by a plan. Some of the parameters are predetermined by the plan; others are estimated by analyses of LAUSD data for 1966 through 1979; a few parameters -- for which there is no rigorous basis for estimation -- are simply assumed. The parameters are determined prior to each simulation and retain fixed values throughout that simulation. The sensitivity of the estimates to certain parameters is tested by running alternative simulations in which the values of one or more parameters are changed (but held to fixed values throughout each simulation), while all other parameters and rules are held constant. The difference between the resulting estimates reflects the particular influence of changing the values assigned to the varied parameter(s).

Decision rules are in many cases explicitly established or implied by the plan being simulated. In other cases, rules have been adopted which reflect the rules apparently employed by the LAUSD in similar situations in the past. In cases where neither the plan nor history offer guidance, rules are selected which appear to be reasonable and sensible. Each variety of rule will be made as explicit as possible in the discussion below.

All simulations are separately performed for elementary school (grades K-6), junior high school (grades 7-9), and senior high school (grades 10-12). Thus, it is assumed that Pairs, Clusters, and Midsites can only include schools of the same level, and that both voluntarily and mandatorily transferred pupils can only be transferred between schools of the same level. Schools with atypical grade ranges (e.g., a school having only the fourth and fifth grades, a school serving kindergarten through twelfth grade, etc.) are included in the simulations at the level implied by the code number assigned to them by the LAUSD, but only with respect to the grades which are contained in that level. A Magnet school serving only grades four and five, for example, is included in the elementary level simulations, but only with respect to those two grades; it is assumed that neither first through third graders, nor sixth graders, are allowed to transfer there. A school in the LAUSD which serves kindergarten through twelfth grade is included in the simulations at the elementary level if its District code is within the range of numbers used by the District to denote elementary schools. A school outside the LAUSD is included in the area-wide resource utilization simulation at the level which contains its median grade.

Each sub-model is briefly outlined below, noting the parameters and rules employed in each and briefly commenting on its rationale. More detailed descriptions of the sub-models, including technical details, the procedures used to estimate certain parameters or to implement certain rules, etc., are available upon permission of the Court.

Major Sub-Models

1. Demographic

The DEMOGRAPHIC sub-model projects the number of pupils, by race/ethnicity and grade, who would attend each LAUSD school in the absence of any desegregation plan. In particular, the sub-model attempts to account for changes in the size and composition of LAUSD's pupil population that are attributable to "normal" demographic trends and patterns -- migration into, out of, and within LAUSD, changing birth rates, etc.

The DEMOGRAPHIC sub-model is used in every simulation and, because the projections are independent of any plan's provisions, every simulation begins with the same set of demographic projections. The projections are based on LAUSD attendance patterns between 1970-71 and 1977-78, and are formed through a four step process.

First, aggregate enrollments are projected by race/ethnicity and grade. It is assumed that, absent mandatory transfers, race-specific net migration rates, rates of entry into kindergarten, and dropout rates were constant over the 1970-78 period and will continue unchanged into the future. The grade distributions of pupils (by race/ethnicity) in 1977-78 are estimated using these factors and these rates are computed for that year. The population is then "aged" into future years, to project aggregate enrollments, by race and grade, in each future year.

There is one exception to this procedure. Because White enrollments in 1976-77 and 1977-78 might reflect some degree of anticipatory flight in response to the emerging possibility of mandatory transfers, the rates for Whites only are derived from the 1970-71 to 1975-76 period, dropping the last two years that are used for all other groups.

The projected net migration (expressed as an average annual change in the cohort for each grade) and projected eleventh and twelfth grade dropout rates, by race/ethnicity, are given in the Table below. Each grade is "aged" during each year of the projection period, starting in 1975-76, by moving it upward one grade.

The retention rates presented in the Table reflect dropouts when the eleventh and twelfth grades are reached. (Users of this Table should keep in mind the importance of the base to which the cohort growth rate is applied. For example, although the average annual growth in the Black and Hispanic cohorts is the same, the pre-school age Hispanic cohorts are very large relative to the [illegible]-school cohorts, while the reverse is the case for Blacks. Thus, the trend is for Hispanics entering the lower grades to more than offset those dropping out in the upper grades, resulting in substantial increases in the total number of Hispanic pupils. The projections show an opposite experience for Blacks.) These figures are then aggregated to generate each racial/ethnic group's total and school-by-school enrollments.

ANNUAL RATES OF CHANGE AFFECTING ENROLLMENTS*

Annual Participation Rate

Group	Annual Avge. Change in Cohort Size	11th Grade Retention	12th Grade Retention
Asian	+5.5%	99.0%	87.0%
Black	+1.0	98.0	79.0
Hispanic	+1.0	79.0	58.0
Native American	0.0	95.0	80.0
Other White	-3.5	95.0	81.0

*Participation, adjusted for net migration, is assumed to be 100% in grades 1-10.

The second step distributes the systemwide projections over 13 areas into which the District was divided. It is assumed that each area's share of each "type" of pupil, distinguished by race/ethnicity and grade, will be proportional to the sum of the number of that type of pupil that attended schools in that area the previous year, plus the area's average (median) numerical change in the number of that type of student attending schools in the area between 1970-71 and 1977-78 (1970-71 to 1975-76 for Whites). If, for example, area Q had 20,000 pupils of race X in its elementary schools in 1982-83, and had experienced an average (median) increase of 500 race X elementary pupils between 1970-71 and 1977-78 (or 1975-76 in the case of Whites), it is assumed that its 1983-84 share of race X elementary pupils will be proportional to 20,500. Each area's shares of pupils are then multiplied by level and race/ethnicity to obtain projections of the number of pupils of each type that would attend each area's schools.

Third, each area's projection of each type of pupil is distributed across the schools in the area. It is assumed that each school's shares of its area's enrollments, by race and level, will be proportional to its previous year's enrollment of that type of pupil plus its average (median) numerical change between 1970-71 and 1977-78 (1975-76 for Whites in enrollment of that type of pupil.

Finally, it is assumed that in each projection year the distribution of pupils of each racial/ethnic group over grades in each school will be the same as the distribution of that racial/ethnic group over grades in the system as a whole. With this final assumption, it is possible to prepare the demographic projections that are presented alone in Part III, and are implicit in every other projection in the series.

2. Flight

The FLIGHT sub-model estimates the number of pupils, by race/ethnicity and grade, who will withdraw from (or not appear at) an LAUSD school in response to adoption of a desegregation plan with mandatory elements. It is assumed that no students will flee in response to voluntary tranfers.

The sub-model includes 36 parameters, all reflecting the rates at which pupils withdraw, depending on their race/ethnicity, whether or not their school is involved in a mandatory plan, and their grade level relative to the grades affected by the mandatory plan. The last mentioned is divided into four categories: 1) an elementary grade below the lowest grade included in the mandatory plan (grades K-3 in 1979-80), 2) an elementary grade included in the mandatory range (i.e., grades 4-6 in 1979-80), 3) a junior high school grade, 4) a high school grade above the highest grade subject to mandatory transfer (grades 10-12 in 1979-80). The Table below presents the parameter estimates. They were obtained from analysis of actual 1979-80 attendance patterns in comparison to the DEMOGRAPHIC projections for 1979-80. A similar analysis of data on 1978-79 attendance patterns in commparison to DEMOGRAPHIC projections for that year yielded similar results.

As emphasized in the footnote below the Table, in order to estimate flight by race/ethnicity and grade for each school, the DEMOGRAPHIC projections are multiplied by the appropriate factors from the Table below. The results are subtracted from the projections to obtain estimates, by home school, of the number of pupils, by race/ethnicity and grade, who will actually attend LAUSD schools in each year. In simulating those plans that extend the range of grades included in mandatory transfers, it is assumed that the estimates listed as "In mandatory range" apply to the extension as each grade is reached. That is, if a plan specifies extension of mandatory transfers to, say, third grade, it is assumed that third graders would withdraw at a rate equal to the withdrawal rate observed among pupils in grades 4-6 during 1978-79. Similarly, it is assumed that the high school "In mandatory" range withdrawal rate (based on observed withdrawal rates among seventh and eighth graders in 1979-80) would apply to tenth through twelfth grades in any plans that extend mandatory transfers above the eighth grade.

This procedure assumes that flight from a plan including mandatory elements occurs in the first year that the plan in imposed and continues so long as the plan is in force. It also assumes that there will be no net return of pupils as long as the plan is in place, and that pupils who do remain after a plan is imposed will not subsequently withdraw (beyond their demographically-explained withdrawal rates) unless their status with respect to the mandatory grade range changes.

ESTIMATED RATES OF PUPIL FLIGHT BEYOND DEMOGRAPHIC PROJECTIONS, BY RACE/ETHNICITY AND DESEGREGATION PLAN STATUS*

	Race/Ethnicity			
Status	Asian/Native American	Black	Hispanic	White
School involved in mandatory plan:				
Elementary grades				
Below mandatory range	20.1%	9.9%	1.5%	37.3%
In mandatory range	20.7	12.1	8.9	50.1
High school grades				
In mandatory range**	0.0	5.6	10.5	55.7
Above mandatory range	5.9	2.4	8.0	46.7
School not involved in mandatory plan:				
Elementary grades				
Below mandatory range	4.1	5.5	0.0	6.3
In mandatory range	0.0	8.9	1.8	4.9
High school grades:				
In mandatory range**	0.0	5.8	0.0	10.8
Above mandatory range	5.9	2.4	0.0	0.1

*It is important to note that the base to which these percentages are applied in order to project flight is the number of pupils of each race/ethnicity that demographic projections indicate would be enrolled if no mandatory desegregation plan were in force. Only prior to the first year of such a plan is this number equal to the number of pupils actually present. In that first year, flight does equal the percentage shown here multiplied by the number of pupils of each race/ethnicity and level that demography alone would lead one to expect. In following years, however, demographic expectations diverge from reality as flight occurs. Henceforth, since the percentage is always applied to the demographic projection, actual flight in any year equals the number of pupils resulting from that multiplication minus those who have already fled. This means a much lower rate of disappearance of pupils than was experienced in the first year. Thus, it is not true that a 50% flight rate results in elimination of a grade in two years, or in ten or 20 years.

** Includes grades 7, 8, 9.

It is further assumed that the withdrawal rate varies with a student's status relative to the mandatory range. This implies that additional withdrawals will be realized among pupils who are initially below the mandatory range but move into the range (either through normal progression through the grades or as a result of a change in the mandatory grade range), and that some pupils who withdrew when they were in the mandatory range will subsequently return as they pass to grades above the range.

The rates and composition of withdrawal experienced in 1978-79 and 1979-80 have also been compared with four plausible causative variables to see whether any of them shows a sufficient correlation to provide a reliable predictive tool. These are the distance to the school to which the pupil was to be transferred; the average reading scores of the sending and receiving schools; the average socio/economic status of the pupil populations at each end of the transfer, and the racial/ethnic balances of each participating school. However, the regressions run to show the influence of these variables do not show a sufficient positive correlation to justify using them for projective purposes. Thus, the procedure described above is the most promising available projection technique.

3. Magnet

The MAGNET sub-model estimates the number of pupils, by race/ethnicity and grade, who will voluntarily transfer from each home school to each Magnet school. The estimates are obtained in two steps. In the first, the total numbers of combined minorities and of whites who would seek admission to each Magnet are estimated. The second step is comprised of a series of allocation rules that determine which pupils are admitted to each Magnet. Pupils who apply to a Magnet school, but are not admitted, are assumed to remain in their home schools. Those who are admitted are added to the attendance of the Magnet school and subtracted from the attendance of their home schools. All subsequent operations "count" Magnet school attendees at the Magnet school, regardless of their home schools, and "count" at the home school only those pupils who remain there.

It is assumed that the probability that a pupil at a regular school would seek admission to each Magnet school depends on his or her race/ethnicity, the racial balance at his or her home school, whether or not the home school is included in a mandatory transfer program, the racial balance at the Magnet school, and the distance to the Magnet school. Because the data required to estimate separate Magnet demand parameters for each Minority group are not available, two sets of parameters are employed -- one for combined minorities and one for Whites. The Table below shows the estimated proportions of pupils, by various categories of student/home school characteristics, who are likely to apply to various categories of Magnet schools. These estimates were derived through an analysis of 1978-79 and 1979-80 attendance patterns at LAUSD's Magnet schools, combined with observations of the recent experience of San Bernardino and San Diego with Magnet schools.

The demand for attendance at Magnet schools is estimated by multiplying the estimated numbers of pupils at each LAUSD regular school, by race/ethnicity and grade, by the corresponding parameter from the Table below, and summing the results. This procedure yields estimates of aggregate applications for Magnet schools. These estimates are then distributed over Magnet schools in proportion to their grade ranges, and categorized with respect to sending regular schools and capacities. Thus, a Magnet school that provides only the fourth and fifth grades shares only in the distribution of fourth and fifth graders. Similarly, a Magnet school shares in the distribution of students willing to travel over 45 minutes from regular schools that are more than 45 minutes away, and in the distribution of pupils willing to travel less than 45 minutes from regular schools located within 45 minutes driving time. Each Magnet school's physical capacity was obtained from the LAUSD.

The above procedure results in estimates of the total numbers of combined minorities and whites who would apply to each Magnet school. A series of allocation rules is then employed to estimate the numbers of pupils of each race/ethnicity category who would be accepted at the Magnet. These rules are designed to reflect three constraints on each Magnet school's student body: a minimum size, a required racial balance, and a maximum size. It is assumed that it would not be reasonably feasible to operate a Magnet school below some minimum size. Based on current LAUSD

PROPORTIONS OF STUDENTS WHO WILL SEEK ADMISSION TO A MAGNET SCHOOL

Home School: In Mandatory Plan by % Minority	Distance to Magnet School by % Minority at Magnet School					
	Within 40 Minutes			More Than 45 Minutes		
	0-40%	40-60%	60-100%	0-40%	40-60%	60-100%
			ELEMENTARY SCHOOLS			
Minorities						
In mandatory plan						
0-40%	.6%	.6%	0%	0%	0%	0%
40-60%	1.8	1.2	0	.6	.6	0
60-100%	2.4	1.8	0	1.2	.6	0
Not in mandatory plan						
0-40%	1.2	.6	0	0	0	0
40-60%	.6	.6	0	.6	0	0
60-100%	1.2	1.2	0	.6	.6	0
White						
In mandatory plan						
0-40%	7.0	2.8	0	.5	.9	0
40-60%	1.4	.9	0	1.4	.9	0
60-100%	7.0	2.8	.9	1.9	1.4	.5
Not in mandatory plan						
0-40%	.9	.5	0	.9	0	0
40-60%	1.4	.9	0	.5	0	0
60-100%	1.9	1.4	.5	.5	.5	0
			JUNIOR HIGH SCHOOL			
Minorities						
In mandatory plan						
0-40%	.9	.9	0	.9	0	0
40-60%	4.6	1.4	.5	.9	.5	0
60-100%	7.0	4.6	1.9	1.4	.9	0
Not in mandatory plan						
0-40%	.9	.5	0	0	0	0
40-60%	2.8	1.4	.5	.9	0	0
60-100%	4.6	2.8	.9	.9	.5	0
White						
In mandatory plan						
0-40%	3.9	1.9	0	.6	0	0
40-60%	9.7	3.9	0	1.9	1.3	0
60-100%	12.9	6.5	1.3	2.6	1.9	0
Not in mandatory plan						
0-40%	1.3	.6	0	0	0	0
40-60%	1.9	1.3	.6	.6	0	0
60-100%	1.9	1.3	.6	.6	.6	0
			SENIOR HIGH SCHOOL			
Minorities						
In mandatory plan						
0-40%	.9	.9	0	.9	0	0
40-60%	4.3	1.3	.4	.9	.4	0
60-100%	6.5	4.3	1.7	1.3	.9	0
Not in mandatory plan						
0-40%	.9	.4	0	0	0	0
40-60%	2.6	1.3	.4	.9	0	0
60-100%	4.3	2.6	.9	.9	.4	0
Whites						
In mandatory plan						
0-40%	4.4	2.2	0	.7	0	0
40-60%	11.0	4.4	0	2.2	1.5	0
60-100%	14.6	7.3	1.5	2.9	2.2	0
Not in mandatory plan						
0-40%	1.5	.7	0	0	0	0
40-60%	2.2	1.5	.7	.7	0	0
60-100%	2.2	1.5	.7	.7	.7	0

practice, an enrollment of 60 is set as that minimum size. Thus, if the demand model described above projects fewer than 60 total applications for a Magnet school, the projections assume that the school would not be operated.

Second, all the plans are assumed to require that each Magnet satisfy the following racial balance criterion prescribed by the Court for this simulation: Magnet schools established through 1978-79 must enroll at least 10 percent Combined Minorities and at least 10 percent Whites in order to be continued into the projection period; new Magnet schools may be opened between 1979-80 and 1984-85 only if they meet the "Desegregated" category's standard, which is enrollment of at least 40 percent Combined Minorities and at least 40 percent Whites. If the estimated numbers of Combined Minorities and Whites that apply to a particular Magnet school do not meet these criteria, it is assumed that all pupils of the racial/ethnic group that generates the smaller number of applicants will be accepted, and that pupils from the racial group that generates the larger number of applicants will be accepted only up to the point that they account for 90% (or 60%, in the case of a new Magnet school) of the Magnet school's student body. If, for example, it is estimated that a new Magnet school would attract applications from 100 Combined Minorities and 200 Whites, it is assumed that all 100 Combined Minority applicants, but only 150 of the White applicants, would be allowed to voluntarily transfer to the Magnet school.

If the racial balance criterion so limits the total number of pupils accepted at a Magnet school that its projected pupil population falls below the minimum size, it is assumed that the Magnet school is closed (in the case of a current Magnet school), or never opened (in the case of a new Magnet school).

Finally, it is assumed that Magnet schools will not accept pupils in excess of their stated physical capacities. If the estimated total number of applicants to a Magnet school exceeds this capacity, it is assumed that the school will accept combined minority applicants up to 90% (or 60% for new Magnets) of its capacity, and accept White applicants up to either (i) the difference between its capacity and the number of Combined Minority applicants accepted, or (ii) 90% (or 60% for new Magnets) of the school's total student body (including the minority applicants that are accepted), whichever is smaller.

An exception to this capacity limit occurs in the case of five elementary schools: Brentwood Science, Mid-City Alternative, Valley Alternative, Vintage, and Paseo Del Rey Fundamental. These schools were simply declared Magnets in 1978-79 by the LAUSD without subjecting the pupils already enrolled in them to any application process. Their excess capacity was then filled using the standard application routine. This poses a dilemma for the simulations.

Brentwood Science School illustrates the problem. The projection model provides that a school either is a Magnet or is not, and that all Magnets are filled by application. If this predominantly White school were treated as an ordinary Magnet, the demand model indicates that it would be very popular, filling to capacity in large part with new Minority and other pupils of the desired racial/ethnic balance (meaning that the current enrollees would largely be transported elsewhere). If its Magnet status were ignored, it would be eligible for pairing in the voluntary/mandatory variations, and would in fact be paired, rather than exempted (under some variations) as a Magnet. The employment of Magnet schools as a desegregation technique would not seem to contemplate a Magnet mode which guaranteed entry to current enrollees regardless of racial/ethnic balance, so the model does not provide for this contingency.

The most promising solution for this first simulation series seemed to be removal of the capacity constraint for this small set of schools, thereby assuming that portable classrooms or other capacity-expanding devices could be employed as they have been in other District schools under capacity pressures. This permits each of the five to accommodate both the Magnet pupils and the regular school enrollees that the model projects would be eligible for entry. However, it also results in projection of a total of 1,835 pupils attending these five schools above the total of their stated physical capacities. More than 1100 of the excess pupils would be at Brentwood. Should the Court instruct, later simulations can be made assuming that these schools are treated (i) entirely as Magnets; (ii) entirely as regular schools; or (iii) as a new class of Magnets filled according to a new selection principle.

Turning back to the general case, the allocation rules further provide that the maximum number of combined minority applicants will be accepted to Magnet schools, subject to the racial/ethnic balance and capacity criteria. It is then assumed that the spaces alloted to Combined Minorities and to Whites by the above rules are randomly distributed among the applicants for those spaces. Suppose, for example, we estimated that six White fourth graders from a particular home school will apply to a particular category of Magnet schools (e.g., Magnet schools with between 40 and 60 percent Combined Minorities located within 45 minutes) and that a total of 500 Whites applied to these Magnet schools. If our allocation rules allowed all 500 White pupils admission to those schools, we assume that all six of the White fourth graders from the home school in question would voluntarily transfer to the Magnet schools. But, if our allocation rules resulted in only, say, 250 spaces available for White pupils in those Magnet schools, it is assumed that there is a .5 probability that each White applicant is accepted by the Magnet schools (i.e., 250 spaces allocated among 500 applicants), so that three of the six pupils in question would be admitted to the Magnet schools. Similar calculations are performed for minorities of each race and ethnicity.

Finally, it is assumed that the pupils accepted by each category of Magnet schools will be randomly distributed among the specific Magnet schools in the category in proportion to the number of spaces available to the pupil's racial group at each Magnet school in the category.

4. Permits with Transportation (PWT)

The PWT sub-model estimates the number of pupils, by race/ethnicity and grade, who will voluntarily transfer from each regular school in the LAUSD to each other regular school in the are obtained in two steps. First, the total numbers of Combined District via the Permit with Transportation program. The estimates Minorities who would voluntarily transfer from each school to each other school are estimated. Then a series of allocation rules are applied to determine which pupils will be allowed such transfers. Pupils who volunteer but are not permitted to transfer are assumed to remain in their home schools. Those permitted to transfer are added to the attendance of the receiving school and subtracted from the attendance of their home school. All subsequent operations "count" PWT applicants at their home schools if they were denied transfers, and at their receiving schools if they were granted transfers.

Examination of LAUSD data on the District's past experiences with the PWT program reveals that negligible numbers of Whites, Asians and Native Americans have participated in the program to date. It is assumed that these groups will not find the PWT program any more attractive in the future than they have apparently found it in the past, and that they will not participate in significant numbers in the PWT program in any year under any desegregation plan.

It is assumed that the probability that a Black or Hispanic pupil will apply for a PWT transfer to a particular receiving school depends on certain characteristics of his or her home school and of the candidate receiving school. It is further assumed that the influences of these characteristics differ among racial/ethnic groups. The LAUSD data on PWT transfers in 1976-77, together with race/ethnicity estimates for 1978-79, are used to create a series of logistic regression models to simulate these differences. These relate the proportion of the pupils of a program to the characteristics of their home and destination schools. Separate models were constructed for Blacks and Hispanics at the elementary, junior high school, and senior high school level.

The parameters of these regression models are given in the Table below. It is assumed that the relative levels of influence of the explanatory variables will continue unchanged through 1985. Accordingly, the number of pupils of each race/ethnicity from a given school who will apply for a PWT transfer to each other school is projected by applying the appropriate logistic regression parameters to the characteristics of the two schools, and then multiplying the resulting estimate times the number of pupils of that race/ethnicity at the home school. It is further assumed that these PWT applicants will be distributed over grades in accordance with the distribution of pupils of that race/ethnicity over grades in the home school, weighted by the distribution of all PWT pupils over grades in 1977-78. The estimates do not include the relatively small numbers of children transported in the "Transport a Child" and "Good of the District" programs.

The above procedure results in estimates of the numbers of pupils, by race/ethnicity and grade, who will apply for a PWT transfer to each LAUSD school. A series of allocation rules is then employed to estimate the numbers who would actually be allowed to transfer. These rules assume two constraints, drawn from current District practice; PWT pupils will be allowed to transfer to a school only to the extent permitted by its stated physical capacity. And, PWT outflows and inflows will be permitted only to the extent that they do not result in a pupil population that violates the specified racial/ethnic balance criteria discussed below at either the sending school or the receiving school.

The capacity rule requires that the total number of PWT pupils transferred into a school cannot exceed the difference between its capacity and its attendance prior to PWT transfers. Note that in all simulations that involve mandatory measures the PWT sub-model follows the FLIGHT sub-model, so that each school's

PARAMETERS OF REGRESSION MODELS FOR SIMULATING PUPIL DEMAND FOR PWT TRANSFERS, BY LEVEL AND RACE/ETHNICITY*

REGRESSION COEFFICIENTS**

	Elementary		Jr. High School		Sr. High School	
	Black	Hispanic	Black	Hispanic	Black	Hispanic
Constant	-2.57	.19	-1.52	1.52	-.35	-3.20
Travel Time	-.02	-.06	-.02	-.04	-.03	-.05
% AFDC	.001	-	.001	-	.00	-
Av. Income of (1970) Census Tract of School	-	-.00	-	.00	-	0.00
% Black In Sending Schools	-	2.25	-	1.97	-	2.73
% Hispanic In Sending Schools	1.35	-	1.35	-	.00	-
% Black In Receiving Schools	-	-7.38	-	-10.6	-	.00
% Hispanic In Receiving Schools	-4.27	-	-4.27	-	-10.5	-
Ratio of Total PWT Students/ PWT Students In Sending Schools***	1.16	1.08	1.48	1.118	1.48	1.15

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*The number of White, Asian and Native American pupils participating in PWT is so small that we assume a ratio of of zero.

**In logistic regression the predicted probability has the form 1/(1+exp(-b'x), where b is the vector of regression coefficients and x is the vector of independent variables.

***The demand model is based on the District's designated sender-receiver pairs. Because pupils in the program may continue even if they move out of the sending school's area, demand estimat[illegible] are multiplied by this ratio to account for pupils not in des[illegible]nated sender-receiver pairs.

attendance has been adjusted for withdrawal from LAUSD because of the adoption of the desegregation plan. Spaces vacated by "fleeing" pupils are assumed, therefore, to be available to pupils seeking PWT transfers. In simulations of plans which specify that transfers to Magnet schools, or mandatory transfers, or both, precede PWT transfers, spaces vacated by pupils so transferred out of a school are assumed available for incoming PWT pupils. Similarly, if mandatory transfers precede PWT transfers, it is assumed that spaces filled by incoming mandatorily transferred pupils are not availabe to PWT pupils.

The racial/ethnic balance rules are embodied in four parameters wich take on different values in each plan. The first stipulates that pupils cannot be transferred from a school if the Combined Minority percentage of the school's student body is below a specified limit. The second requires that the number of pupils transferred out does not drive the Combined Minority percentage (based on the number of pupils remaining in the school) below another specified percentage. The third parameter requires that pupils cannot be transferred into a school if its Combined Minority percentage is already above a specified limit. And, the fourth requires that the number of pupils transferred in cannot drive the receiving school's Combined Minority percentage above a specified limit. The particular limits imposed in each simulation are stated in the detailed discussion of each plan.

It is assumed that priority is given to pupils from schools which are located in the most geographically isolated areas. All potential sending schools are first identified. This list extends to all schools in which our estimate of the number of pupils who would voluntarily transfer to any other school via the PWT program is greater than zero. These schools are then ranked in inverse order of the average distance from their areas to the areas in which potential receiving schools are located, and in random order within each area. Beginning with the first school on the list, all students applying for PWT transfers to other schools are transferred to their preferred destinations, subject to the capacity and racial/ethnic balance criteria. If the preferred destination is not available (because it either has no room for additional pupils or has reached the specified racial/ethnic limit), the applicant is transferred to his or her next preferred destination, and so forth, until either all pupil demand for PWT transfers from the school is satisfied, or all destinations have been exhausted. Th attendance at the sending school and at all schools to which its pupils transfer is adjusted, and the model goes on to the next school in the ranking and repeats the process. This procedure continues through all schools for which there is an estimated positive demand for PWT transfers.

5. Pairs/Clusters/Midsites

The PAIRS/CLUSTERS/MIDSITES sub-model provides a procedure for assigning individual schools to Pairs or Clusters or Midsites subject to a constraint on the maximum travel time imposed on mandatorily transferred pupils. The procedure is designed to make assignments which will maximize the number of schools that can be desegregated through mandatory transfers. As noted above, schools are assigned to Pairs or Clusters or as Midsites without a special effort to preserve those 1978-79 groupings that are non-optimal in the sense of maximizing the total number of schools desegregated throughout the system. The reasons for this choice have already been discussed. The assignments for 1980 are made on the basis of the distribution of pupils among LAUSD schools in 1979, and they assume that those assignments will continue without change through 1982-83. The rationale for this has also been set forth above. Because the changing demographic context will gradually affect the viability of Pairs/Clusters/Midsite combinations over time, schools are reassigned, without regard to their previous assignments, in the Spring of 1983, effective in the Fall of that year. The sub-model is reapplied on the basis of the estimated distributions of pupils among District schools in 1982-83. The new assignments are assumed to remain unchanged through 1984-85.

In assigning schools to Pairs or Clusters, it is always assumed that schools that are at least 40 percent Combined Minority and at least 40 percent White are exempted from Pairs or Clusters. In one set of variations (presented as Plans C1 and C2 in Part V), this exemption is extended -- as is the current District practice -- to schools with at least 30% of both groups. For purposes of this calculation, mandatorily transferred pupils are always counted at their home schools, while voluntarily transferred pupils are counted at their home school or at their destination school, depending on the specifications of the plan being simulated. In assigning schools to Midsites, the Midsite is assumed to be "neutral" in that it must have at least 40 percent Combined Minorities and at least 40 percent Whites. It is further assumed that no more than two schools will transfer pupils to the Midsite, of which at least one must have less than 40 percent Combined Minorities and the other less than 40 percent Whites. As is the case for Pairs and Clusters, mandatorily transferred pupils are always counted at their home schools, and voluntarily transferred pupils are counted at either their home school or their destination school, depending on the plan involved.

The limitations of the available mathematical optimization procedures limit us to including no more than three schools in a Cluster, and assigning no more than three schools, of which one is the neutral Midsite, to each midsite combination.

Travel time limitations -- 30 or 45 minutes, depending on the plan being simulated -- are assumed to refer to the time between pupil pickup and arrival at his or her destination, and it is further assumed that the average pupil's pickup point is 10 minutes from his home school. Thus, the average pupil's travel time is the travel time between his or her home school and his or her destination school, plus 10 minutes. The travel time constraint applies to pupils, not to schools. Thus, if a Cluster is to comprise schools A, B, and C, with schools A and B each exchanging pupils with C but not with each other, A and B must be located within the allowed travel time of C, less 10 minutes. But no restriction is placed on the distance between A and B. Similarly, if schools A and B are transferring pupils to Midsite C, A and B must each be within the allowed travel time of C, less 10 minutes, but may be any distance apart from each other.

The assignment of schools to Pairs, Clusters, or Midsites proceeds in several steps. First, a series of calculations is performed to identify Pairs in which both partner schools can be desegregated. Formally, these are pairs in which: 1) One school has more than 60 percent Combined Minorities while the other has more than 60 percent Whites; 2) the schools are located within the travel time constraints (less ten minutes) of each other; and 3) given the number of pupils by race/ethnicity and grade in each school, the schools' capacities, and the grade range in which mandatory transfers are allowed by the plan being simulated, there exists a pattern of mandatory transfers which will desegregate both schools. A mathematical optimization technique is then employed to select a set of these candidate Pairs which includes the maximum number of pairs that can be formed within the constraints. The optimization technique guarantees that no other set of Pairs can be selected that both satisfies the constraints (travel time and desegregation of both schools) and yields a greater number of Pairs. The schools included in these Pairs are projected to be assigned to each other.

Second, the remaining schools (excluding those initially exempted and those paired by the above rules) are examined to identify pairs in which at least one of the paired schools can be desegregated through mandatory transfers. Each of these Pairs is studied in turn, to determine whether the addition of any other remaining school to the Pair will permit the desegregation of all three schools. Formally, three-school Clusters are identified in which: 1) one (or two) of the schools has at least 60 percent Combined Minorities while the other two (or one) has at least 60 percent Whites; 2) each of the predominantly White schools is located within the applicable travel time constraint of each of the predominantly Combined Minority schools; and, 3) given the distributions of pupils, capacities, and specified mandatory transfer grade range, there exists a pattern of mandatory transfers among the schools which will desegregate all three. Whenever such a Cluster is found, the schools are assigned to the Cluster and are not further considered in subsequent steps.

The third step replicates the second, except that now schools are assigned to three-school Clusters whenever there emerges a trio of the remaining schools in which two of the schools can be desegregated by mandatory transfers.

The schools remaining after this third step are then reviewed, and, where possible, Pairs are formed in which one of the schools can be desegregated by mandatory transfers.

The fifth and last step assigns to Midsites any schools that have not yet been assigned to Pairs or Clusters, subject to the travel time constraints. It is assumed that any school having at least 40 percent Combined Minorities, at least 40 percent Whites, and sufficient excess stated capacity to accommodate at least 50 additional pupils can be a Midsite. All of the remaining predominantly Combined Minority and predominantly White schools are arrayed against all potential Midsites to identify possible Midsite combinations of three schools, comprised of a predominantly White school, a predominantly Combined Minority school, and a Midsite. The predominantly White and the predominantly Combined Minority schools must each be within the specified travel time of the Midsite. Once all such potential combinations are identified, a mathematical optimization procedure is used to identify a set of Midsite combinations which maximizes the number of Desegregated schools.

Any schools not assigned to Pairs, Clusters, or Midsites by the various procedures outlined above are assumed exempted from mandatory transfer for the three-year period to which the assignments apply.

6. Mandatory Transport

The MANDATORY TRANSPORT sub-model estimates the number of pupils, by race/ethnicity and grade, who must be mandatorily transferred from one school to another to desegregate as many schools as possible, given constraints on school capacities and the grade range for mandatory transfer specified by the plan being simulated.

The sub-model applies only to the schools in Pairs, Clusters, or Midsite combinations. For Pairs, it is first determined whether the distributions of pupils by race/ethnicity and grade, the schools' capacities, and the specified grade range for mandatory transfer will permit the desegregation of both schools. If so, the pattern of mandatory transfers required to accomplish that objective with the minimum number of transfers is computed. If only one of the schools can be desegregated within the constraints, the pattern of mandatory transfers required to desegregate the larger of the two with the minimum number of pupils transferred is calculated. When it is impossible to desegregate the larger school within the constraints, the mandatory transfer pattern which will desegregate the smaller school with minimum pupil transfers is projected. Finally, if neither school can be desegregated without violating a constraint, the maximum degree of desegregation that can be accomplished in each school is estimated (i.e., how close each school can be brought, through mandatory transfers, to a total student body having at least 40 percent Combined Minorities and at least 40 percent Whites) and the projection assumes that pattern of mandatory transfers necessary to bring whichever school can come closest to the desegregation criterion.

The reader should note that, because these computations are designed to achieve school desegregation with the fewest possible transfers, it is not required that equal numbers of pupils be transferred in both directions. Nor is it necessary that the distribution of pupils in the grades subject to mandatory transfers have any particular character in either school. In particular, it is possible within the decision rules that the pattern of mandatory transfers required to desegregate one or both schools, or to bring about through minimized transfers the maximum attainable degree of desegregation if neither school can be fully desegregated, can result in one or both schools having only Minorities or only Whites in the grade ranges in which mandatory transfers are allowed. Finally, the minimum transfer objective implies that each school send only Minority students or only White students to the other.

In Clusters, computational tractability requires the imposition of an additional constraint: that each school in the Cluster transfer out as many pupils as it transfers in. Thus, it is assumed that each school maintains its total attendance. Subject to this and the other constraints, the following objectives are pursued in the given order: 1) Desegregation of all three schools. 2) Desegregation of the two larger schools. 3) Desegregation of the largest and smallest schools. 4) Desegregation of the two smaller schools. 5) Desegregation of the largest school that can be desegregated. 6) Attainment of the maximum possible degree of desegregation in the one of the three with a majority of a group (Combined Minority or White) that is in the minority in the other two schools. The mandatory transfers required to achieve the goal in the above hierarchy that proves to be the highest attainable, subject to the constraints and with the smallest number of mandatory transfers, are then projected. As in the case of Pairs, it is not required that the distribution of pupils in the grades subject to mandatory transfer exhibit any particular pattern in any of the schools.

In Midsite combinations, it is assumed that the pattern of mandatory transfers must be such that the combined body of pupils transferred to the Midsite from both senders are such that the Midsite remains at least 40% Combined Minorities and 40 percent Whites. It is further assumed that the total number of pupils transferred to the Midsite must be less than its excess stated capacity. Subject to these constraints, the following objectives are pursued in the order given: 1) Desegregation of both sending schools. 2) Desegregation of the larger sending school. 3) Desegregation of the smaller sending school. If neither school can be desegregated, an equal number of pupils is sent to the Midsite from each school, up to the receiving capacity of the Midsite. If any school subsequently becomes desegregated, additional pupils are sent from that school only when necessary to keep the Midsite in balance.

In any event, given the computed numbers of Whites and Combined Minorities who must be mandatorily transferred according to the above rules, they are assumed to be randomly drawn from their home school populations. Thus, the mandatorily transferred Whites are assumed to be distributed over the grades included in the plan in proportion to their numbers in those grades in their home schools. Mandatorily transferred Combined Minorities are assumed to be distributed over racial/ethnic groups and grades in proportion to the numbers of each group in each of the relevant grades at their home schools.

All of the rules stated above are subject to the constraint that no transfer plan is every permitted to move a school from the "Segregated" to the "Desegregated" category. When the above computations are completed, the attendant figures are adjusted, by race/ethnicity and grade, at all schools involved in mandatory transfers, to reflect the estimated pattern of pupil outflows and inflows. We thus obtain estimates of the distributions of pupils by race/ethnicity and grade across all LAUSD schools that will result if the mandatory transfer rules discussed above are implemented.

7. Multi-Ethnic

The MULTI-ETHNIC sub-model estimates the number of pupils, by race/ethnicity and grade, who must be mandatorily transferred from one school to another such that the distribution of pupils at every LAUSD school will satisfy specified racial balance criteria. For the same reasons discussed in connection with the Pair/Cluster/Midsite sub-model, this assignment is done only twice during the projection period, in the Spring of 1980 and again in the Spring of 1983.

We begin by estimating the numbers of pupils, by race/ethnicity, who must be transferred into or out of each school to satisfy the criteria. For computational tractability, we are forced to assume in estimating these transfer requirements that every school transfers out as many pupils as are transferred into it, thereby maintaining its overall size. A mathematcal optimization procedure is then used to obtain the pattern of transfers among schools which satisfy the transfer requirements identified in the first step at minimum aggregate transportation time. Then the numbers of pupils is estimated, by race/ethnicity and grade, who are likely to withdraw from LAUSD in response to the imposition of mandatory transfers. Finally, the transportation pattern is adjusted to take account of the withdrawals.

The multi-ethnic prototype requires that every school be either bi-ethnic, with each race/ethnicity accounting for at least 40 percent of its enrollments, or multi-ethnic. The prototype stipulates that multi-ethnic schools' student bodies must satisfy the following race/ethnicity distribution:

Race	Minimum Percent	Maximum Percent
Asian & Native American	0%	30%
Black	10	40
Hispanic	20	50
White	20	40

These specifications require that pupils be transferred in such a way that each school falls into one of seven racial/ethnic patterns, in no order of preference: a) Asian/Native American and Black, b) Asian/Native American and Hispanic, c) Asian/Native American and White, d) Black and Hispanic, e) Black and White, f) Hispanic and White, or g) Multi-ethnic. Accordingly, the minimum number of pupils that each school would have to transfer out (which must equal the number transferred in because of our constant school size assumption) to achieve the "closest" of these regimes is computed. Each school's "closest" regime is defined as the one it can achieve with the fewest mandatory transfers.

The schools are arrayed, from largest to smallest, in the order of the number of transfers required for each to reach its closest regime minus the number of transfers required to reach the multi-ethnic regime. (Note that because schools which naturally fall into one of the regimes will require no transfers to reach their closest regime, they will tend to head the sequence.) The machine proceeds down the list, computing the number of pupils, by race/ethnicity, who would need to be assigned to each school in order to bring its student body within its closest regime. As each of the "assignments" is made, the pool of pupils not yet assigned is checked (i.e., pupils in schools which have not received "assignments," plus pupils who would be transferred out of schools which have received assignments, less pupils who would be transferred out of schools which have received assignments). If the composition of the pool of unassigned pupils satisfies the multi-ethnic regime, it is assumed that the school being considered will be assigned the computed pupil population. If, on the other hand, the set of transfers required to bring the school in question to its closest regime would result in a pool of unassigned pupils outside the multi-ethnic regime, the school is passed over and the model proceeds to the next one. The process continues until every school has been considered. If any schools do not receive assignments in this process, the procedure is repeated for those schools. If schools without assignments remain after the second pass, the procedure is repeated a third time.

If there remain schools without assignments after three repetitions, the model computes the transfers required to bring each remaining school to its second closest regime. It again goes through the list of remaining schools three times, attempting to assign each to its second closest regime on each pass.

Any schools which have not received assignments through the above procedure are then assigned a proportional (to their size) share of the pupils of each race/ethnicity who remain in in the unassigned pool. Because the model ensures that the pool of unassigned pupils always meets the requirements of the multi-ethnic regime, these pro rata assignments are guaranteed eventually to bring all remaining schools into the multi-ethnic regime. This procedure, then, seeks to minimize the number of pupil transfers needed to adjust the distribution of every school's student body according to the specifications of the multi-ethnic plan.

Once it has been determined how many pupils of each race/ethnicity musts be transferred into and out of each school to satisfy the plan's requirements, a mathematical optimization technique is used to determine the number of pupils, by race/ethnicity, to be transferred from each school to each other school. This technique allows computation of the system of transfers, for each race/ethnicity, which meets every school's requirements (for transfers in and out) at minimum aggregate travel time.

The FLIGHT sub-model is now applied to estimate the numbers of pupils, by race/ethnicity, who will withdraw from LAUSD schools in response to the mandatory transfer plan. The system of transfers is then adjusted to account for the absence of these withdrawing students.

The above steps yield estimates of the numbers of pupils, by race/ethnicity, who will be mandatorily transferred in accordance with the multi-ethnic plan. It is assumed that transferred pupils will be distributed over grades in proportion to their distributions over grades in their home schools, and enrollments are adjusted by race/ethnicity and grade at all schools to reflect the system of transfers.

8. Area-Wide Transportation

The AREA-WIDE TRANSPORTATION sub-model estimates the numbers of pupils, by race/ethnicity who would be manditorily transferred from LAUSD schools to schools in other districts in accordance with an area-wide resource utilization plan. The procedure is essentially that used to form Pairs.

It is assumed that transfers outside LAUSD are undertaken after all intra-LAUSD desegregation activities specified by the simulated plan have been completed. Hence, the model begins by estimating the enrollment effects of whatever voluntary and/or mandatory transfers are undertaken in the particular intra-LAUSD plan being simulated (that is, by MAGNET, PWT, and MANDATORY TRANSFER as called for, and in the order called for, by the plan), and then adjusting each school's enrollment accordingly. All LAUSD schools with at least a minimum percentage of Combined Minorities and a minimum percentage Whites (the required minimums vary from one plan to another) are exempted from participation in these transfers. All other schools are classified as potential Combined Minority senders or potential White senders, depending on which group has the larger share of their enrollments.

All schools outside LAUSD are then examined in order to identify as potential receivers of White pupils. Those which have excess capacity and a pre-transfer enrollment of more than 50 percent Combined Minorities are identified as potential receivers of White pupils. The travel time between each potential LAUSD sender of Whites and each potential non-LAUSD receiver of Whites is then measured so as to identify all potential Pairs in which the schools are located within 20 minutes of each other (thus allowing for ten minutes of pickup time). A mathematical optimization tecnique is then used to select a particular set of White sender-receiver Pairs which maximizes the number of schools included. Similarly, all potential Combined Minority Pairs are then identified, comprising an LAUSD Combined Minority sender and a Combined Minority receiver outside LAUSD located within 20 minutes of each other, and then the optimization technique is used to select a particular set of combined minority sender-receiver pairs which maximizes the number of schools involved.

Once these Pairs are established, the number of mandatory transfers from each Pair's sender to its receiver is estimated. It is assumed that no Combined Minority (or White) sender can transfer out so many Combined Minorities (or Whites) that the sender is left below 50 percent of its student body (net of transfers) in the sending race/ethnicity, or to drive the number of Combined Minorities (or Whites) at the receiver above 50 percent of its student body, including the incoming transfers. It is further enforced that the number of pupils transferred to a non-LAUSD school cannot exceed that school's stated excess capacity. Subject to these constraints, it is projected that the sender will transfer as many pupils as it can up to the number which desegregates the sender, but not more than that number. Mandatory transfers are distributed over the grades common to both sender and receiver and, for Combined Minorities, races/ethnicities, in proportion to the distribution of pupils, by race/ethnicity and grade, in the sending school.

9. Transportation Time

The TRANSPORTATION TIME sub-model is used to estimate the travel time between a pupil's home and the school to which he or she is transferred. It is assumed that the average transferred pupil is picked up in the home neighborhood 10 minutes before his or her bus departs the area for the destination school, and that the travel time between departure point and the destination school equals the travel time between the home school and the destination school. Thus, travel time equals the time between a pupil's home school and the school to which he or she is transferred, plus 10 minutes.

A model developed by CALTRANS is used to estimate travel times between schools, It divides the Los Angeles area into 1285 zones, each approximately the size of the typical census tract. All trips are assumed to take place along a highway network comprising all freeways and major arterials and numerous collector and connector streets. In all, the highway network includes 10,000 links -- road segments between the highway network's intersections or connections to zone centroids. CALTRANS estimates of the time required to travel each link, off peak or on peak, are based on levels of congestion and type of roadway. Given the possible routes between any two zones and the times required to transit each link of each route, a mathematical optimization routine is used to estimate the shortest time route between those zones.

All schools are assumed to be located at the centroids of their zones. Accordingly, the CALTRANS sub-model is used to estimate the on-peak travel time in each direction between any two schools, and it is assumed that the average of those times plus 10 minutes equals the travel time for the average pupil transferred, voluntarily or mandatorily from one to the other.

Main Caveats

The limitations imposed by the project time horizon, gaps in the data base, and the state of the art of simulation have been discussed. However, there are two other points of which the reader should be wary in embracing simplistic interpretations of the results reported herein.

First, it must be emphasized that these are simulations of prototypes of desegregation plans, not of full-blown plans in which detailed provision is made for administrative implementation, financing, political consensus-building, and the like. A prototype can only seek to exemplify a basic concept, not to express the infinity of possible variations and gradations possible within the frame of the concept. None of the prototypes simulated in this series includes all of the parameters proposed by any single participant in the Los Angeles school desegregation litigation. This would be impossible even if desired because most such offerings have not been detailed plans, but generalized suggestions and comments, and the views and proposals of various participants have changed over time.

But the task assigned the consultants was not to simulate the effects of each of the many variations on many themes that have been proposed in court. It was to simulate plausible prototypes expressing each of the four principal themes that have emerged, in the hope that this would aid in consideration of the issue at the conceptual level. In our view the proper test of a prototype is not, therefore, whether it is identical to any single proposal or definitive with respect to questions of detail. It is whether projection of the effects of instituting a plan that expresses the ideas that animate the prototype provides a valid indication of the direction of the implications of most variations upon this conceptual theme, as well as a useful analytic base for subsequent projection of whatever variations may attract interest.

Thus, while the school-by-school projections presented in later volumes of this Report do offer quantitative enrollment and racial/ethnic mix data for each building in the LAUSD, these should not be regarded as precise or as important as the broad directions that are visible when the data are aggregated and summarized, as they are in this volume. There are simply too many as yet uncharted variables at work to forecast with confidence that the enrollment of any particular school will behave exactly as the prototype-based projections predict. More confidence is possible with respect to the general direction of system-wide change because statistical analysis suggests that aberrations at the school level are likely to balance each other out when taken together. School-by-school figures suitable for detailed implementation planning would require a much closer and more tailored review of the characteristics of each school than is now possible on the basis of machine readable data.

Second, it should be noted that the prototypes do not present an entirely coordinate or mutually exclusive list. In particular, the multi-ethnic approach is not so much a means to achieve given desegregation objectives as it is a redefinition of desegregation ends. As such, it could be pursued by any of the three sets of means represented by the other three conceptual themes that underlie the other 16 variations simulated in this series. Similarly, a plan involving the facilities of surrounding school districts could be carried out through all-voluntary, voluntary/mandatory, or entirely mandatory measures, and could be aimed at a conventional or a multi-ethnic definition of desegregation. Therefore, the choices made in designing the prototypes have not been confined to issues within each theme, but have included questions of combining two or more of the approaches. Still, there are many more combinations possible than are include in the variations thus far simulated.

III. THE DEMOGRAPHIC BACKDROP

All of the prototype simulations start with and build upon projections of changes in school enrollments that are, insofar as analytic tools can make certain, independent of the influence of a court-ordered desegregation plan. The object of these projections is to sort out from the stream of change those effects, both past and future, that reflect underlying social trends -- birth rates, migration rates, and the like -- that do not seem to bear any demonstrable relation, positive or negative, to events on the school desegregation front. To this end, this Part summarizes school-by-school projections of the probable behavior of LAUSD enrollment during 1980-85, by race/ethnicity, if the issue of a court-ordered desegregation plan had not arisen as a realistic prospect. All pupil numbers are rounded to the nearest thousand in order to facilitate reading them.

School Capacity to Receive Neighborhood Overload

The main decision rules incorporated into these projections are discussed in Part II. However, one effect of these rules is worthy of special mention because it occasionally produces odd results, both in the demographic simulation and in all others, since all of the other simulations begin with the demographic projections.

In a fast-growing area the effect of the rules may be to project a neighborhood enrollment that exceeds the physical capacity of the school in which the model places the pupils. The model is very sensitive to capacity with respect to any voluntary or mandatory inflow of pupils; a school at or very near its stated capacity would not be eligible to receive such an influx. However, for reasons discussed above, the model is constrained against changing attendance areas and/or building schools, so that when the neighborhood pupil population expands beyond the capacity of the local school, the computer has no choice other than to show the larger number of pupils as enrolled in that school even if the physical capacity to absorb them is not present. Fortunately for the analysis, school enrollment is shrinking overall, so that distortions introduced by this factor are on the whole minor. Still, some of the school-by-school figures may appear anomalous to readers who know the particular situation of a fast-growing school well.

Racial/Ethnic Composition of Enrollment

Chart 2 first traces the evolution of the system's actual racial/ethnic components from the school year 1966-67 to 1975-76 (although the text sometimes employs actual figures for 1977-78, the last year before introduction of a court-ordered desegregation plan). The Chart then shows the projected changes in composition that would have occurred in the years beginning in 1979-80 if no court-ordered desegregation plan had been introduced.

During the years for which it reflects actual events, the Chart depicts the well-known demographic trends that radically affected the pupil population beginning long before court-ordered desegregation became a lively prospect. The population of White pupils dropped from 355,000 (or 57%) in 1966-67 to 195,000 (or 34%) in 1977-78. The population of Black pupils rose from 134,000 (or 21%) to 142,000 (or 25%) during the same period, although it leveled off and actually began to drop during the latter 1970's. The population of Hispanic pupils rose from 117,000 (or 19%) to 202,000 (or 35%) during the same interval, accelerating rapidly in this decade. The population of pupils of Other Minorities also rose sharply, from 22,000 (or 4%) to 40,000 (or 7%) but started from a much smaller base. Meanwhile, total enrollment dropped from 628,000 to 579,000.

In the years after 1977-78 -- for which the Chart shows not what did happen but what would have happened without a court-ordered desegregation plan -- the changes in composition are still dramatic. In 1979-80, for example, it indicates that the White population would have fallen to 177,000 (or 31%), while the Hispanic population would have risen to 224,000 (or 39%), and the Black population would have declined in absolute numbers (to 137,000), but held reasonably constant in percentage terms (at 24%). The population of Other Minorities would have risen to 42,000 (or 7%).

Since these projections apply to the current year, we can compare them to what actually happened under a court-ordered desegregation plan. This is done in the Table below. It suggests that the current plan has reduced total enrollment by about 43,000 pupils. With respect to racial/ethnic mix, it has somewhat hastened, but not otherwise affected, trends that were proceeding rapidly in the same directions prior to its introduction. To be specific, it seems to have lowered the White pupil component from 31% to 27%, raised the Hispanic from 39% to 42%, and held constant the shares of Blacks (24%) and Other Minorities (7%).

Projected Demographic Pupil Composition
vs. Actual Composition, 1979-80

	Black		Hispanic		White		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number
Demographic Projections (assuming no desegregation plan)	136,872	24	224,189	39	177,395	31	42,295	7	580,751
Actual	128,273	24	225,114	42	144,742	27	39,726	7	537,855

During the years following the current one, the projections indicate that, in a context of renewed growth in the number of pupils in the system, demographic trends alone would create a severe racial/ethnic imbalance among District enrollees regardless of the presence or absence of a desegregation plan. The enrollment of White pupils would decline, according to the projections to 118,000 (or 20%) by 1984-85, while the Hispanic pupil population rose to 302,000 (or 51%). Meanwhile, the Black population would fall to 126,000 (or 21%), and the population of pupils of Other Minorities would rise to 51,000 (or 8%).

The fundamental message conveyed by these baseline enrollment projections is that unless some discontinuity occurs in the underlying social forces that affect school enrollment, the effects of any desegregation plan are best measured in terms of the number of years required to reach a position of racial/ethnic imbalance in the LAUSD that will be reached within the foreseeable future in any event. This is not to say, of course, that a discontinuity is impossible. Indeed, these demographic projections themselves take into account the likelihood that the rate of growth of Hispanic pupils will taper off a bit in the 1980's from the extremely rapid rate experienced during the past few years. However, comparison of these projections with actual data suggest that desegregation policies have not been principal determinants of the direction of change in the racial/ethnic characteristics of pupil population; the projections indicate that the same will be true of the years ahead unless social trends of at least 15 years standing are reversed.

Segregated/Desegregated Schools

Chart 3 presents the numbers of schools that fell (in the actual years) and would have fallen (in the projected years) into the "Segregated" and "Desegregated" categories with no intervention by a court-ordered desegregation plan. (In all of the projections in this Report except those for the multi-ethnic prototype, "Desegregated" denotes a school with no fewer than 40% each of White and Combined Minority enrollees.) Within the "Segregated" category, the Chart further separates schools into those comprised of more than 60% White pupils (usually called Racially Isolated White schools [RIWS], and those with more than 60% Combined Minorities (usually called Racially Isolated Minority schools [RIMS]).

In 1966-67, as the Chart shows, there were 44 Desegregated schools in the District, comprising 8% of the total number. And 313 of the 507 Segregated schools were of RIWS variety. By 1977-78, the number in the Desegregated category had enlarged to 83 (or 14% of the total), and the balance of Segregated schools had shifted so that 325 of the 530 had become RIMS. Had no desegregation plan been introduced, the projections indicate a total of 70 Desegregated schools (12% of the total) in 1979-80, falling to 63 (or 11%) by 1984-85. Of the Segregated schools that would exist in 1984-85, a strong majority of 440 would be RIMS (or 82% of total Segregated schools).

The 1979-80 demographically projected total of 70 Desegregated schools (or 12% of all schools) compares to 173 Desegregated schools (or 28% of all schools) that have actually been realized in 1979-80 with the introduction of a desegregation plan. The effect of introduction of the current plan, according to the model, has been desegregation of 103 (or 147%) more schools than would have been desegregated if demographic conditions had been left alone.

Prior to introduction of a court-ordered plan, the pattern of movement was led, in terms of absolute numbers, by the elementary schools, which included 34 (or 8%) Desegregated institutions in 1966-67 and 54 (or 12%) in 1977-78. The junior high schools, on the other hand, increased by six Desegregated schools during this period, from seven (or 10%) to 13 (or 17%). Meanwhile, the high schools were exhibiting the most marked proportional change, moving from three (or 4%) to 16 (or 19%) Desegregated units. During the years for which the Chart offers projections, the DEMOGRAPHIC sub-model suggests that this pattern would have been reversed, assuming no introduction of a desegregation plan. The elementary schools would have led the slow decline, going from 47 (or 11%) Desegregated schools in 1979-80 to 42 (or 10%) in 1984-85. The corresponding figures for high schools would have been 12 (or 14%) in 1979-80 to 10 or (12%) in 1984-85. Junior high schools would have been stable at 11 Desegregated schools (or 15%) throughout the period.

Actually, in 1979-80 -- with a court-ordered desegregation plan -- this reversal has not yet occurred, except at the high school level. The 47 Desegregated elementary schools predicted by demographic factors alone compares with 133 actually realized in the current year. The 11 Desegregated junior high schools predicted compare with 30 now in existence, and the 12 Desegregated high schools compare with 10 actual ones.

Overall, the demographic projections suggest that basic social trends have so far been strongly influencing but not controlling the degree of desegregation of schools actually achieved in the District, as compared with the effects of the current desegregation plan. Some 60% of the schools that are actually desegregated in the current year would not have been predicted to be in this status on the basis of demographic factors alone. The fact that the plan's intervention shows in such different intensities at different grade levels reflects the exclusion from the plan of grades K-3 and 9-12. This also reduces the number of Desegregated schools created by the plan because the "Desegregated" classification refers to overall school enrollments.

Pupils in Segregated/Desegregated Schools

Chart 3 also shows the total number of pupils, by race/ethnicity and educational levels, that did attend (in the actual data years) and would have attended (in the projected years) Desegregated schools. This number attained a peak of 76,000 (or 13% of the total), which it reached in 1977-78. If no desegregation plan had been installed, the projections indicate that it would have declined to 66,000 (or 11%) in 1979-80. In fact, 1979-80 figures from the LAUSD show the total at 118,000 (or 22%).

By 1984-85, the projections suggest that demographic forces alone would lower the total number of pupils attending Desegregated schools to 54,000 (or 9%) if no desegregation plan were introduced. However, this total masks quite different ratios among races/ethnicities. Of the 126,000 Black pupils in the system in that year, for example, 10,000 (or 8%) would be expected to attend Desegregated schools, compared to 11,000 (or 4%) of Hispanics; 5,000 (or 9%) of Other Minorities; and 28,000 (or 24%) of Whites. Thus, in the last year of the demographic projections, 52% of the pupils in Desegregated schools would be White. The odds that a White pupil would attend a Desegregated institution would be about one in four, compared to less than one in 20 for Hispanics, less than one in 10 for Blacks, and less than one in 10 for Other Minorities.

The Table below, which is a different form of presentation of the type of data in the Chart, shows the percentage share of pupils from each ethnic group, at each level, that has attended and is here projected to attend Segregated and Desegregated schools if no desegregation plan were introduced. The actual years in the Table indicate, for example, that 97% of all Black pupils attended Segregated schools in 1966-67, and that this figure sank to 95% in 1975-76, and then fell slightly to 94% in 1977-78. Hispanic pupils lost a little ground in this period, going from 89% to 90% enrollment in Segregated institutions. Pupils of Other Minorities, though less segregated in both years, also moved backward, from 75% in Segregated schools in 1966-67 to 81% in 1977-78. Whites, on the other hand, dropped from 93% enrollment in Segregated schools to 80% during these years.

Assuming no desegregation plan, the model projects that the share of Black pupils attending Segregated schools would stay at 95% in 1979-80 and then fall to 92% in 1984-85. The Hispanic share would rise to 91% in 1979-80 and to 96% in 1984-85. The corresponding numbers for pupils of Other Minorities are 81% in 1979-80 and 91% in 1984-85. Meanwhile, the share of White pupils in Segregated Schools would hold at 81% in 1979-80 and then fall to 76% in 1984-85.

With respect to the projected years, the model indicates that, left entirely to their own devices, demographic forces would hasten these trends, except, to a small degree, for Blacks. The share of pupils of each other Minority, particularly Hispanics, attending Segregated schools would rise steadily, while the share of Whites enrolled in such schools would decline.

The projections indicate that in 1979-80 the effect of the current desegregation plan has been to substantially reinforce the downward trend for Whites, and to mildly reverse the demographically-anticipated increase in the segregation of Blacks,

ACTUAL AND PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, ASSUMING NO DESEGREGATION PLAN, 1966-1985

Actual

1966-67
(% Total)

		Black	Hispanic	Other Minorities	White
Desegregated	Elem.	1.7	6.3	14.6	3.9
	JHS	1.0	2.9	6.7	2.0
	SHS	.6	1.6	3.4	1.0
Segregated	Elem.	61.7	55.9	41.6	50.6
	JHS	19.7	15.8	14.3	21.3
	SHS	15.3	17.5	19.4	21.2

1975-76
(% Total)

		Black	Hispanic	Other Minorities	White
Desegregated	Elem.	1.0	6.8	9.9	7.2
	JHS	1.5	2.8	4.3	3.5
	SHS	2.3	2.4	5.5	3.7
Segregated	Elem.	52.2	55.2	41.6	42.5
	JHS	22.4	17.7	19.1	20.8
	SHS	20.5	15.0	19.6	22.4

1977-78
(% Total)

		Black	Hispanic	Other Minorities	White
Desegregated	Elem.	1.6	4.7	7.8	7.6
	JHS	2.0	2.9	5.1	6.0
	SHS	2.3	2.8	6.2	6.7
Segregated	Elem.	49.2	58.2	43.7	39.1
	JHS	22.4	17.2	18.5	18.5
	SHS	22.6	14.3	18.7	22.1

ACTUAL AND PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS (Continued)

Projected

1979-80
(% Total)

		Black	Hispanic	Other Minorities	White
Desegregated	Elem.	1.8	2.4	4.3	5.5
	JHS	1.8	2.3	2.6	5.6
	SHS	1.7	4.1	6.6	7.6
Segregated	Elem.	22.5	12.6	19.6	19.9
	JHS	23.2	17.7	21.0	20.5
	SHS	49.1	60.9	45.9	41.0

1984-85
(% Total)

		Black	Hispanic	Other Minorities	White
Desegregated	Elem.	1.7	0.8	2.4	5.7
	JHS	3.9	1.2	2.9	9.4
	SHS	2.5	1.7	3.8	8.6
Segregated	Elem.	24.1	13.9	21.7	22.3
	JHS	21.5	21.0	21.5	17.3
	SHS	46.3	61.4	47.6	36.8

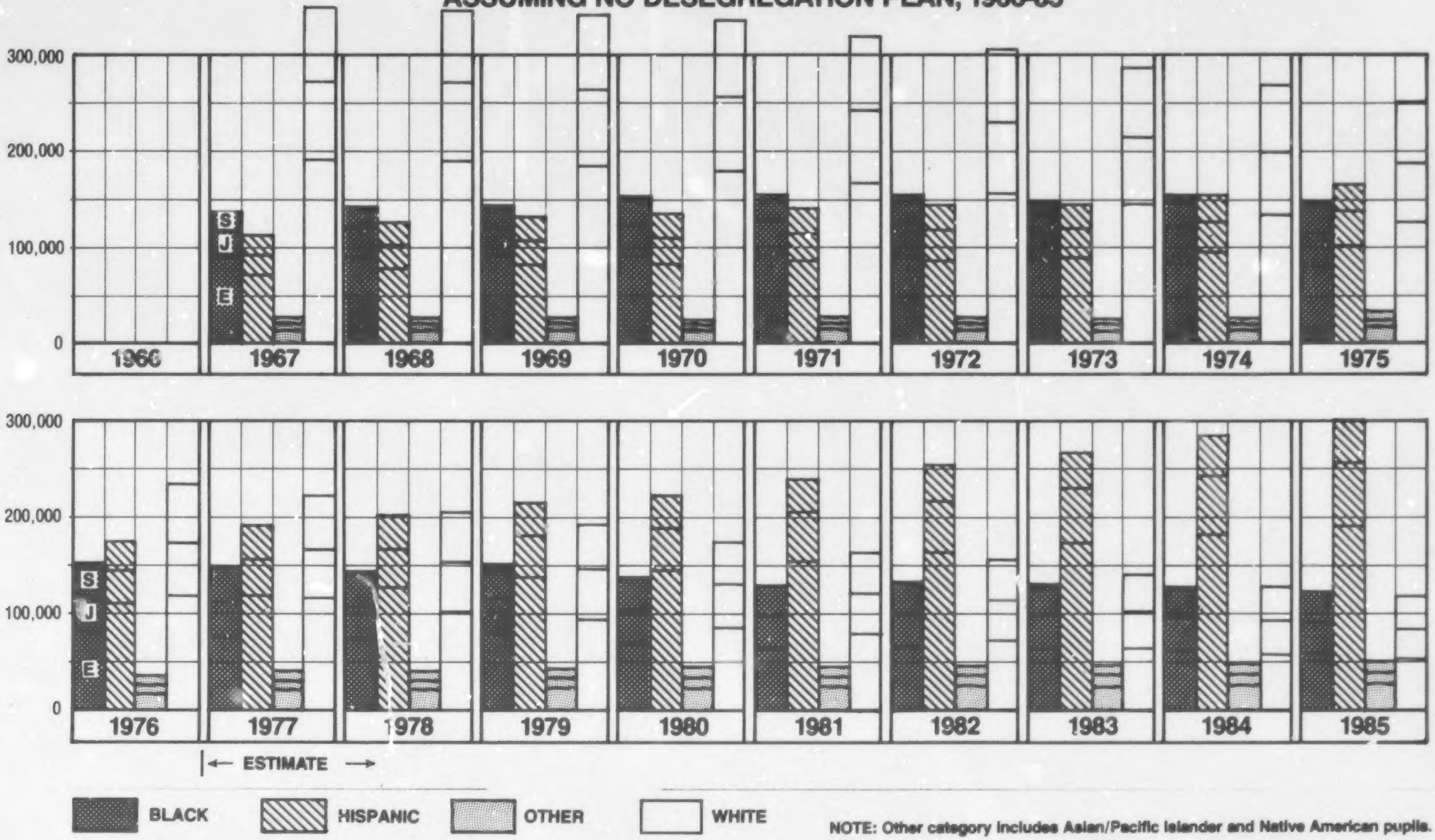
Hispanics and Other Minorities. The plan has apparently resulted in a drop from a demographically-anticipated level of 81% to 58% Segregated in the case of White pupils, from 95% to 88% in the case of Black from 91% to 85% for Hispanics, and from 81% to 75% for Other Minorities. In all cases, the plan had also led to an actual drop in the Segregated pupil share of all racial/ethnic groups as compared with pre-plan years, though again the difference is by far greatest in the case of Whites. With these plan-caused changes, the current odds that a pupil of any race/ethnicity will attend a Desegregated school in 1979-80 are a little better than one in five; the odds that a Minority pupil will do so are about one in ten. In the absence of any desegre- gation plan, the projections suggest that by 1984-85 these odds would deteriorate to no better than one in ten for any group, and one in 20 for a Minority pupil.

Again, as in the case of schools, it is clear that the current desegregation plan has altered the intensity but not the direction of the demographic forces that have resulted in the great majority of LAUSD pupils attending Segregated schools. Some 52,000 more pupils are actually attending Desegregated schools in the current year than would be predicted on the basis of demographic factors alone. This amounts to 44% of all pupils in a desegregated situation, but only 10% of the total number of pupils. And the majority of those moved into desegregated settings are White. However, it should again be noted that these numbers refer to pupils in Desegregated schools, not in desegregated grades and that they do not reflect desegregated education experiences that may be afforded pupils who are transported to schools of a different race/ethnicity but not in sufficient numbers to move the receiving school into the "Desegregated" category. As indicated above, these caveats are particularly important when the plan in effect does not include any pupils in several grade levels.

CHARTS FOR PART III

CHART 2

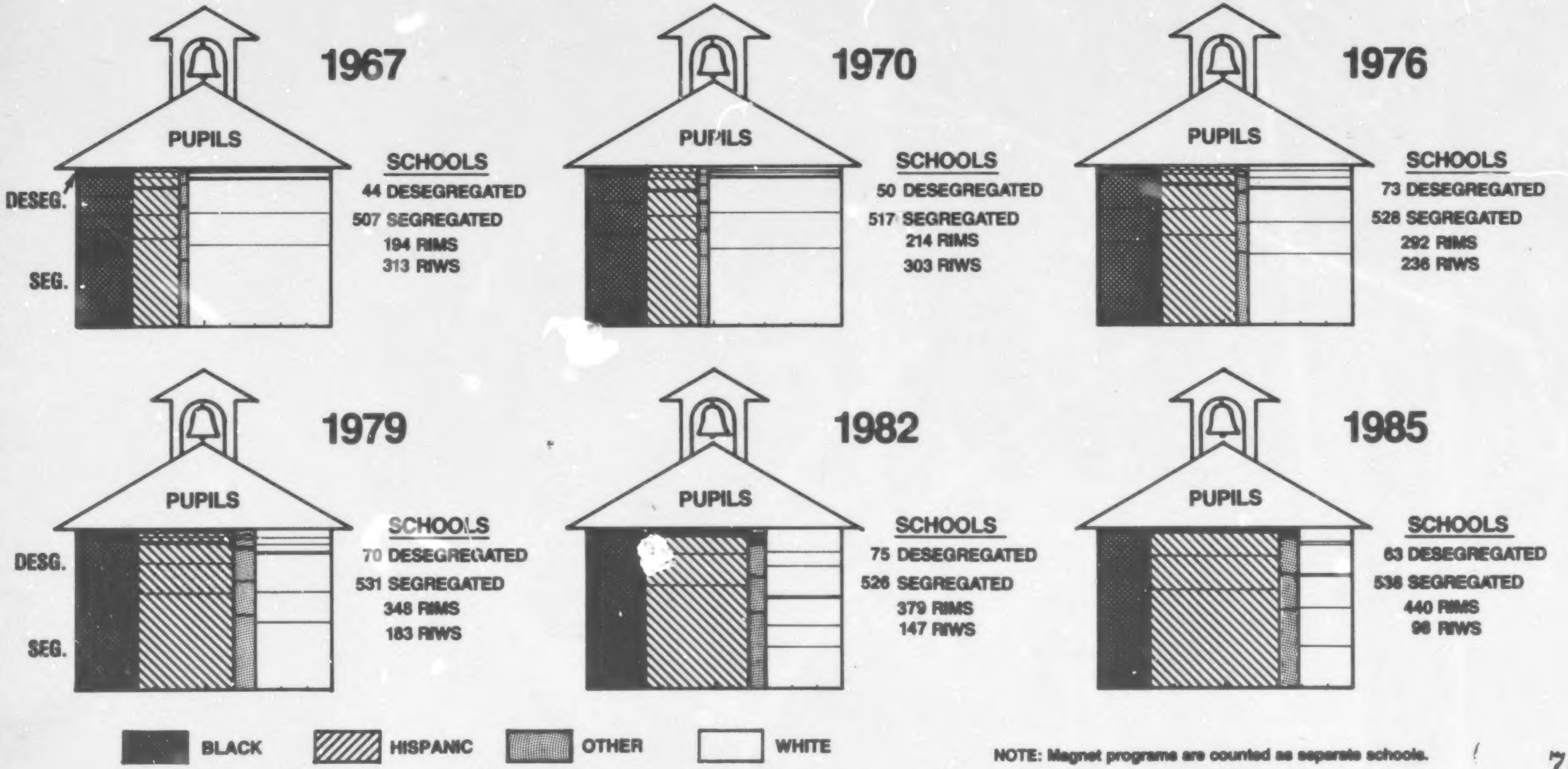
ACTUAL AND PROJECTED RACIAL/ETHNIC PUPIL DISTRIBUTION ASSUMING NO DESEGREGATION PLAN, 1966-85



NOTE: Other category includes Asian/Pacific Islander and Native American pupils.

CHART 3

ACTUAL AND PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, ASSUMING NO DESEGREGATION PLAN, 1966-1985



NOTE: Magnet programs are counted as separate schools.

IV. ALL-VOLUNTARY PROTOTYPE

Definition

The objective of this prototype is desegregation of the maximum number of schools possible without fettering pupil (or parent) choice through any form of mandatory locational assignment or transportation rooted in the desegregation purpose.

Programmatic Instruments Employed

The prototype assumes that the objective will be pursued through two programs: Magnet schools and the Permits With Transportation (PWT) program. It further assumes substantial District effort to meet any demand within administrative reason for establishment of desegregated Magnets (and maintenance of old ones even where they have up to 90% White or Combined Minority enrollment), and/or demand for PWT assignment to any school in the District. However, the simulation builds its demand estimates from the base of pupil behavior experienced when the option to applying for Magnets/PWT was not mandatory transportation to another school. This option, of course, would not be present if a desegregation plan expressing the all-voluntary theme were selected by the Court.

The prototype does not require -- but also does not preclude -- the simultaneous introduction of other programs designed to accomplish racial/ethnic contact between representatives of the major groupings. Papers submitted to the court suggest that these might include:

-- Reintroduction of the Area Program for Enrichment Exchange (APEX), under which District high school students could, up until 1972, choose to go to another school to take one or two courses of specialized instruction not available at their own schools.

-- Establishment of a Program for Intercultural Achievement (PIE) in which classes of elementary school students of different racial/ethnic extraction would meet weekly to work on joint projects at one of the schools or at some central point. Junior high school students would meet biweekly.

-- Institution of Learning Centers in which participating pupils in grades four, five, and six could spend a total of at least one school year (of the three) in desegregated settings to which they would be publicly transported after an hour of instructional activity at their home schools.

Thought was given at the outset to detailed forecasts for these programs of the kind provided herein for Magnets and PWT. This would entail formidable technical problems because there are no recent historical data on the APEX program, and the other two have always been proposed as mandatory programs, so that the enrollment projections associated with them have no relation to a concept of voluntary demand. However, the deciding factor militating against such forecasts in this simulation series was the fact that none of these proposals was advanced as a means of desegregating schools, as distinguished from adding to the desegregated educational experience provided to pupils. The instruction to the consultants emphasize school desegregation as the measure of achievement. Thus, as currently defined, the objective of the prototype is unrelated to the product of any detailed forecasting of participation in these additional programs.

Constraints and Specific Decision Rules

The general decision rules built into the sub-models for projecting Magnet and PWT participation are described in Part II. The All-Voluntary prototype imposes no constraints on the grade level of the participating pupil; even kindergarteners are eligible. It also imposes no travel time constraints. The prototype has been simulated in two variations, labelled A and B respectively in the material below.

Consistent with the use of Magnets and PWT as desegregation devices, the simulation model imposes the following conditions (each of which is subject to alteration in later simulation series):

-- New Magnet schools are permitted to be formed only where the pattern of applicants permits an enrollment pattern such that the Magnet will meet the criterion of a Desegregated school (i.e., no less than 40% each of White and Combined Minority pupils).

-- Existing Magnets are maintained only if the enrollment of Whites and Combined Minorities is at least 10% each.

-- PWT pupils are assigned to schools in inverse order of the average distance between the home-school area and the area that the receiving school is located in.

-- No receiving school can continue to receive pupils if continued receipt would move it from the "Desegregated" to the "Segregated" category.

Experience indicates that regardless of the rhetoric of universals often used in discussing desegregation in principle, certain minimal administrative bounds are always set in the implementation process in order to keep administrative complexity and cost within some broad limits. A simulation that assumed no such bounds would risk a substantial element of unreality. Thus, the prototype contains the following administratively-motivated floors and ceilings, each of which represents a usually more generous version of rules currently followed in practice by the LAUSD (and all of which are, again, subject to change in subsequent simulations);

- Magnets can open and/or remain open only if they contain a minimum of 60 pupils.
- No fewer than five pupils can be transported from any school to any other school at public cost.
- No PWT sending school can send pupils to more than 20 other schools.
- No Magnet or PWT receiving school can take in more pupils than can be accommodated within its stated capacity. (The special situation of Brentwood Science School and four other current Magnets, as discussed in Chapter II, should be kept in mind as an exception to this rule.)

Difference Between Variations

The two variations, Plan A and Plan B, differ from each other in only one respect:

- Plan A assumes that all of the pupils that have "fled" the District for non-demographically explained reasons since the beginning of mandatory pupil transportation would return in the Fall of 1980 in the wake of adoption of an all-voluntary plan.
- Plan B assumes that none of these "fleers" would return.

It may be plausibly argued that reality is more likely to lie somewhere between these extremes than at one pole or the other. However, neither experience in Los Angeles nor elsewhere provides any historical basis from which to forecast a percentage of return. For this reason it seemed more helpful to bracket the problem -- i.e., to project the maximum and minimum effects of this variable -- than to pick an arbitrary number somewhere in between. Subsequent projections can be made using any estimate of return that is desired.

Data Inaccuracy Affecting Plan B

There is one known, minor inaccuracy in the 1979 LAUSD Racial and Ethnic Survey data which are used in the calculation of pupil flight, and, therefore, affect the projection of the results of Plan B in this prototype. The error does not affect Plan A, and has been corrected with regard to all of the other projections in this series. However, the fact of the error in the District-supplied data did not come to the consultants' attention until October 29, when it was too late to change the Plan B data files.

The error is in the count of Blacks at Loren Miller Elementary School. A clerical error in the District's report from the School (which is a member of a desegregation pair), has resulted in misclassification of 1041 Black pupils as Asian. This very marginally affects the figures on flight of pupils in these two categories, and should have an almost indiscernible effect on the Plan B projections. It does not affect the white flight figure. Nevertheless, the reader should know that the error exists, and be informed that there may be other, as yet undiscovered errors in the data. As noted above, time has not permitted any independent verification of these numbers. Still, the sheer magnitude of the pupil population means that errors must be very large indeed before they threaten the validity of the entire data base.

Number of Segregated/Desegregated Schools

Chart 4 shows the numbers of schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. Since Magnet programs are counted (as they are in current District practice) as separate schools, the total number of schools rises and falls as Magnets are formed and closed. Also, as noted above, existing (but not new) Magnets can be either Segregated or Desegregated by the standard definition, so this fluctuation can affect internal totals as well as the overall number of schools.

In brief, as the Chart shows:

- -- In Plan A the number of Desegregated schools starts at 120 (or 18%) in 1980-81 and falls to 111 (or 16%) by 1984-85. The corresponding numbers for Plan B are 140 (or 21%) and 99 (or 15%).
- -- In Plan A the number of Segregated schools starts at 537 (or 81%) in 1980-81 and rises slightly to 542 (or 83%) by 1984-85. The corresponding numbers for Plan B are 514 (or 79%) and 548 (or 84%).
- -- In Plan A, within the "Segregated" category, the number of RIWS declines from 128 to 62 by 1985, while RIMS increase from 409 to 480. The corresponding figures for Plan B are 98 to 54 in the case of RIWS, and 416 to 494 in the case of RIMS.

Overall, the broadest finding of the simulation is that, given the parameters stated herein, neither Plan will desegregate more than 21% of the schools in 1980-81, nor retain more than 17% of them in that category in 1984-85. In both instances the prospect is for a steady decline in the proportion of Desegregated schools as the projection period proceeds.

The simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be a marked drop in the number of Desegregated schools. For Plan A this reduction would lower the total number of currently Desegregated schools by 53, cutting the actual number by 31%. In the case of Plan B, 33 Desegregated schools (or 20% of the current Desegregated group) would fall out of the total. Nevertheless, both Plans would accomplish additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan A would desegregate 55 more schools in 1980-81 and 48 more in 1984-85 than would be demographically expected in the absence of a plan. Plan B would desegregate 75 more schools in 1980-81 and 36 more in 1984-85 than would demographic forces operating without intervention by a plan.

However, the difference between the two Plans -- the return of the 1978-80 "fleers" in Plan A -- has interesting effects. In the first three years of the projection period, the return of these pupils actually reduces the number of Desegregated schools that would be realized if none returned. The difference in favor of Plan B is 20 Desegregated schools in 1980-81, 10 schools in 1981-82, and three schools in 1982-83. It reflects the demand models' forecast that returning Whites would be less likely to volunteer for transfer programs than Minority pupils, and would occupy slots in predominantly White schools that would therefor be unavailable to Minority pupils who wished to transfer into them. The result would be 30 more Racially Isolated White Schools under Plan A than under Plan B in 1980-81. Although this margin steadily narrows in later years, there would still be eight more RIWS under Plan A at the end of the period than under Plan B.

After the first three years of the period, however, the model projects that demographic trends would erode the White population in the extra schools Desegregated under Plan B, while those Desegregated under Plan A hold virtually steady because of the greater number of returned Whites assumed under that Plan. Thus, in the last two years of the period, when Plan B Desegregated schools would fall off sharply, Plan A would be the more effective combatant of segregation. In both cases, however, segregation would be on the increase (as it would be under both Plans throughout the period), and the difference in 1984-85 would be between

17% of schools Desegregated under Plan A and 15% under Plan B.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by the all-voluntary variations assume no pupil flight. Quite the contrary, Plan A provides for return of 43,000 pupils in 1980-81, as compared with the actual total realized in 1979-80, and maintenance of the demographically-anticipated number throughout the five-year period. By 1984-85, this yields a total student body of 597,000, of whom 126,000 (or 21%) would be Black, 302,000 (or 51%) Hispanic, 51,000 (or 8%) Other Minorities, and 118,000 (or 20%) White. Plan B, assuming no return of the 1978-80 "fleers," starts with the actual total in 1980-81 and projects a demographically-shaped total student body of 565,000 in 1984-85, of whom 119,000 (or 21%) would be Black, 299,000 (or 53%) Hispanic, 48,000 (or 9%) Other Minorities, and 98,000 (or 17%) White.

Chart 5 depicts the numbers of pupils attending schools in each category under each Plan during the projection period. In brief, it shows that:

- In Plan A the total number of pupils in Desegregated schools starts at 109,000 (or 19%) in 1980-81 and declines to 88,000 (or 15%) in 1984-85. The corresponding figures for Plan B are 118,000 (or 22%) and 82,000 (or 14%).
- In Plan A the number of pupils in Segregated schools begins at 470,000 (or 81%) in 1980-81 and rises to 508,000 (or 85%) in 1984-85. The corresponding figures for Plan B are 417,000 (or 78%) and 483,000 (or 86%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 118,000 (or 22%), and that would be accomplished only in the first year. By 1984-85, this number is projected to shrink to the 82-88,000 range (or 14-15%). In both instances, the forecast is one of steady decline throughout the period.

However, the model suggests that the immediate effect of introduction of either Plan, as compared to actual conditions in 1979-80, would involve nowhere near as severe a reduction in the aggregate number of pupils in Desegregated schools as would occur in the total number of such schools. Indeed, Plan B would result in almost precisely the same number (118,000) of pupils in Desegregated schools in 1980-81 as are actually in such institutions in 1979-80, and Plan A would reduce the actual total by only 9,000 (or 8%). Although, as shown above, both Plans would desegregate substantially fewer schools than is now the case, the schools that are desegregated are projected to be substantially larger, on average. This will permit as many pupils to attend Desegregated schools under Plan B (or 92% as many in the case of Plan A) as are in that situation under the current voluntary/mandatory desegregation plan.

Both Plans A and B would effectuate much more desegregation of pupils than would have occurred in the absence of any plan. Plan A is forecast to put 45,000 more pupils in Desegregated schools in 1980-81 and 34,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan B are 54,000 in 1980-81 and 27,000 in 1984-85. The odds that a pupil would attend a Desegregated school in 1984-85 would improve under both Plans from the one in ten projected if there were no plan to about one in seven. The racial/ethnic makeup of pupils in Desegregated schools under either Plan would be approximately evenly balanced between White and Combined Minority shares with Whites having a slight edge.

Looking across the full projection period, the two Plans again show the crossing phenomenon already described with regard to schools. Plan B -- which, again, assumes no return of "fleers -- results in more pupils in Desegregated schools in the first three years, whereupon Plan A becomes more effective in this respect in the last two. However, the percentage differences between the Plans are not so great with regard to pupils as to schools. Plan B provides a desegregated educational setting for 9,000 more pupils in 1980-81, while Plan A offers 7,000 more this experience in 1984-85. However, neither would have more than 15% of the total pupil population in Desegregated schools in that final year of the period.

Differential Effects on Grade Levels

Charts 6, 6A, 7, and 8 present, respectively, the elementary, junior high school, and high school effects of the two Plans, by racial/ethnic groups. In brief, they show that:

- Among elementary school pupils, sixth graders would generally make up the highest proportion (16-17% in Plan A and 15-16% in Plan B) in Desegregated schools, while first graders would comprise the lowest (13% in Plan A, and 14% in Plan B).
- All junior high school pupils would fall into the 32-35% participation range, with eighth graders slightly more likely to be involved and ninth graders slightly less so than the average in most years.
- Among senior high school pupils, tenth graders would be the largest group (36-38% in Desegregated schools, while twelfth graders would be the smallest (27-30%).
- Between 84% and 89% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high

schoolers would be 62% to 79%, and for senior high school enrollees 71% to 85%.

Overall, the simulation indicates that pupil participation in Desegregated schools would be the inverse of the grade-by-grade pattern of the population up to tenth grade, and then a reversal in the eleventh and twelfth. That pattern is to have fewer pupils in each successively higher grade. To the contrary, under both Plans there would be more pupils involved in Desegregated schools in each successively higher grade up to and including the tenth. Indeed, there would be a major expansion in pupil participation between grade six (15-17% of all pupils) and grade seven (32%). The higher level would then be held and slightly augmented through grade ten, and then fall off noticeably in the eleventh and twelfth grades. The implication is that the voluntary Plans would be much more attractive to parents of junior high school and entering high school pupils than to those of elementary and finishing high school pupils. Still, by the end of the period, even the total share of all junior high school pupils who would be in Desegregated schools would be only 21-22%, as against 15-16% of all senior high pupils and 11% of all elementary school enrollees.

Racial/Ethnic Mix of Schools

Charts 9, 10, and 11 present the racial/ethnic mix of, respectively, elementary, junior high, and senior high schools. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier. In brief, these Charts indicate that:

-- The number of elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two plans in 1980-81 ranges from 115 (or 25% of all elementary schools) to 119 (or 26%). By 1984-85, this range closes to 11% in both Plans.

-- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 259 or 56% of all elementary schools) to 269 (also 56%). By 1984-85, this range changes to to 72%-74%.

-- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 16 (or 17% of all junior high schools) to 23 (or 25%). By 1984-85, this range changes to 11%-16%.

-- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 46 (or 49% of all junior high schools) to 49 (or 52%). By 1984-85, this range changes to 64%-65%.

-- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 18 (or 18% of all high schools) to 24 (or 25%). By 1984-85, this range closes to 20% in both Plans.

-- The number of senior high schools in the bands closest to "Segregated" in 1980-81 ranges from 56 (or 57% of all senior high schools) to 60 (or 61%). By 1984-85, this range changes to 63%-65%.

-- The elementary schools are most heavily segregated throughout the period in both Plans, but the senior high schools are close behind in all years.

Overall, the pattern suggested by the model is the same as that for Segregated and Desegregated schools, indicating that the statistical definition of desegregation used herein has not generated misleading results. Under both Plans, schools at all levels start the period with 18-26% of their number in the bands closest to "Desegregated," and 46-56% of them in the bands closest to "Segregated." By the end of the five years, all levels have moved toward the "Segregated" end of the spectrum, leaving only 11-20% in the "near-Desegregated" bands and 63-74% in the "most Segregated" bands. The movement in this direction, as demographic forces erode the White pupil population, is reasonably steady in all levels over the projected years.

The two Plans do have some differential effects, however. Plan B results in seven more junior high schools and seven more high schools in the "near-Desegregated" category in 1980-81. In the case of junior high schools, Plan B maintains approximately this advantage through the rest of the period. But in both other levels the effects achieved through the two approaches are, by this measure, identical. And at all levels, two-thirds to three quarters of the schools are projected to be in the "most Segregated" bands by 1984-85 under either Plan.

Magnet Schools

Since the interplay of demographic forces with Magnet demand would produce changes in the Magnet list for each Plan every year, a simplifying chart presentation of Magnet developments over the period is not possible. The aggregates may be summarized as follows:

-- Plan A would result in a total of 56 Magnets in 1980-81, of which 13 would be new and 43 would be from the current list. Of the current ones that would be preserved, 42 (or 75% of all Magnets) would be Segregated by the definition used herein. Plan B would generate 53 total Magnets in that year, 11 new and 42 old, of which 41 (or 77% of all Magnets) would be Segregated.

-- In 1984-85, Plan A would yield a total of 52 Magnets, of which 40 (or 77%) would be Segregated. The corresponding numbers for Plan B would be 47 and 37 (or 72% of all Magnets).

-- Under Plan A 41 current Magnets would operate through the entire projection period, while 11 of the 13 first opened in 1980-81 would survive the full five years. Under Plan B 38 current Magnets would last the full period, and nine of the 1980-81 crop of 11 would last the full period.

-- The number of pupils attending Magnets in 1980-81 under Plan A would be 10,373 (or 2% of all pupils). These pupils would be 27% Black, 45% Hispanic, 8% Other Minorities, and 21% White. Under Plan B, the total number of pupils would be 9,515 (or 2% of all pupils), and the racial/ethnic breakdown would be 26% Black, 47% Hispanic, 8% Other Minorities, and 19% White.

-- By 1984-85 the number of pupils attending Magnets under Plan A would fall to 9,026 (still 2% of all pupils). They would then be 22% Black, 52% Hispanic, 9% Other Minorities, and 17% White. Under Plan B the total number of pupils in 1984-85 would be 8,258 (or 1% of all pupils), of whom 21% would be Black, 54% Hispanic, 8% Other Minorities, and 17% White.

Overall, the simulation indicates that relatively few new Magnets would get formed without the option of mandatory transportation and with the rule that requires new Magnets (but not current ones) to meet the "Desegregated" standard. Under both Plans about three quarters of all Magnets at both the beginning and the end of the projection period would be holdover, Segregated units. The number of pupils involved would decline slightly in both Plans over the period, with Plan B always a bit lower than Plan A. However, since the program would never engage more than 1-2% of the pupil population, this difference would have little effect on the general desegregation picture. Turnover of Magnets would be relatively light under both Plans.

The immediate effect of the installation of either Plan, as compared with actual conditions in 1979-80, would be no substantial change in the number of Magnets (53-56 as compared to the current 55), but a noticeable reduction in the number of pupils enrolled in them (from the current 12,245 to 9,500-10,500). Of the 55 Magnets in existence in 1979-80, 42-43 would survive in 1980-81, and 38-41 by 1984-85. However, there would be a very noticeable change in their average size and racial/ethnic makeup. Combined Minority Magnet participation would rise from 56% of all Magnet attendees in 1979-80 to 79-81% in 1980-81. This change in proportion would result not so much from an increase in the number of participating Combined Minority pupils as from a decrease in the number of White participants. Most of the decline in the total Magnet population reflects the demand sub-model's projection (on the basis of past behavior where the option was not mandatory transportation) that fewer Whites will apply if no mandatory program exists.

The difference between the two Plans is modest, in terms of their effects on Magnets. Both would show a decline in the number of Magnets over the projection period. Both would result in about three-quarters Segregated Magnets in all years. Both would show the same shift in racial/ethnic participation, in which

Hispanics would rise about 7%, Blacks would fall about 5%, Whites would drop about 2%, and Other Minorities would constitute a stable proportion. Plan A would begin the period with a slightly higher share of Whites, reflecting the returnees that it is assumed to include, but by 1984-85 demographic forces would bring the two Plans to precisely the same share of White participation, although there would still be some 800 more total pupils in the program under Plan A than under Plan B.

Pupils Transported

Chart 12 shows the total number of pupils who would be voluntarily transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

- From 29,000 (or 5% of all pupils) to 30,000 (still 5%) pupils would be transported in 1980-81. The corresponding range for 1984-85 would be 23,000 (or 4%) to 24,000 (still 4%).
- Most pupils transported in all years would be elementary school pupils; in 1980-81 48-49% of all pupils transported would be from the elementary grades. In 1984-85, this range would change to 48-54%.
- The burden of transportation to non-neighborhood schools would fall predominantly upon Minority pupils in both Plans in all years. In 1980-81, 93-94% of all pupils transported would be Minority, with Blacks making up 50%, Hispanics 40-41%, and Other Minorities 3%. In 1984-85 the travel share of Minorities would remain at 93-94%, while the individual share of Blacks would

be 46-47%, Hispanics 44%, and Other Minorities 3%.

-- Of all Minority pupils in the system, from 6 to 7% would be transported in 1980-81, falling to 5% in 1984-85. Blacks would move from 11% in 1980-81 to 9% in 1984-85. The corresponding numbers for Hispanics would be 5-6% and 3%; and for Other Minorities 2% and 1-2%. The share of White pupils transported would start the period in the 1% range, and remain there throughout the period.

Overall, the simulation indicates that the number of pupils transported would fall by about 20% over the projection period under either Plan. Virtually all (93-94%) pupils transported would be Minority members, with the mix shifting slightly over the period to decrease the share of Blacks and increase that of Hispanics. Nevertheless, by 1984-85 only one Minority pupil in 20 would be transported. This overall average would translate into about one chance in 10 that a Black pupil would be transported, about one in 35 that a Hispanic would be, and one in 100 that a member of another Minority would participate. The odds that any pupil of any race/ethnicity would be transported would fall slightly over the period, but remain in the general vicinity of one in 20.

The immediate effect of adopting either Plan A or Plan B in 1980-81, as compared with actual conditions in 1979-80, would be a sharp decrease in the number of pupils transported, and a large change in their racial/ethnic balance. The number transported would fall from the actual figure of 42,000 (or 8% of all pupils) in 1979-80 to 29-30,000 (or 5%) in 1980-81. But the number of White pupils transported would drop sharply from 8,000 (or 6% of all White pupils) to 1,800-2,100 (or 1%). Combined Minority pupils, on the other hand, would decrease from 33,000 (or 8% of all such pupils) to 28,000 (or 7%). At this point it would be seven times as likely that a Minority pupil would be transported than that a White pupil would, but the odds for a Minority pupil would still be only about one in 12.

The differential effects of the two Plans would be minimal in this area. At no point during the period are they more than 1% apart with regard to any measured result. This reflects the fact that the Plans are at variance only as to the number of Whites present. Since Whites would not be much involved in pupil transportation under these Plans, this difference exerts little influence on the transportation figures.

Charts 13 and 14 break down the total pupils transported into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

- Plan A would result in transportation of 10,000 pupils (or 2% of all pupils) to Magnets in 1980-81, falling to 9,000 (still 2%) in 1984-85. Under Plan B the 1980-81 figure would be 9,000 (or 2% of all pupils) and the 1984-85 estimate 8,000 (still 2%).
- Under Plan A the 1980-81 total of pupils transported to Magnets would include 3,000 (or 26%) Blacks, 5,000 (or 45%) Hispanics, 770 (or 7%) Other Minorities, and 2,000 (or 21%) Whites. Plan B would result in 3,000 (or 27%) Black pupils being transported, 4,000 (or 47%) Hispanics, 715 (or 8%) Other Minorities, and 2,000 (or 19%) Whites.
- Under Plan A the 1984-85 total of pupils transported to Magnets would include 2,000 (or 23%) Blacks, 5,000 (or 53%) Hispanics, 735 (or 7%) Other Minorities, and 2,000 (or 18%) Whites. Plan B would include 2,000 (or

21%) Blacks, 4,000 (or 54%) Hispanics, 664 (or 8%) Other Minorities, and 1,007 (or 17%) Whites.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would rise from 33-34% in 1980-81 to 35-38% in 1984-85. The racial/ethnic mix of the Magnet pupils would show a modest rise in the Hispanic component, a slight fall in the Black and White shares, and relative stability for Other Minorities. By the end of the period, no more than 2% of any group would be transported to Magnets.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of pupils transported to Magnets, despite the simultaneous reduction in the total number of Magnet attendees. Pupils now attending completely Segregated Magnets (which the model closes, would tend to live closer to these schools than would pupils attending new, Desegregated Magnets. As a result, total pupils transported to Magnets would rise from the current total of 7,000 to 9-10,000. The district has no detailed data on the racial/ethnic characteristics of pupils currently transported to Magnets, so comparisons must refer to Whites and Combined Minorities only. At present Minorities represent 56% of the total, and Whites 44%. Under these Plans the Minority share would rise to 79-82% (or about 8,000 pupils).

The two Plans would not exhibit the crossing phenomenon with respect to Magnet transportation. Plan B would involve more pupils in all years, usually 1200-1400 more. However, there would be some crossing with regard to racial/ethnic groups. Plan A would always have a higher proportion of Whites, reflecting the returnees that it is assumed to have in 1980-81. But by 1984-85, the particular openings available to pupils under the two Plans result in a slightly higher percentage of Blacks in Plan A than in B, a reversal of their 1980-81 positions. Hispanics are always a bit larger proportion in B than in A. All of these differences are quite small, however. The basic outlines of these proportions remain relatively constant within each Plan and between the Plans over the projection period.

Chart 14 presents the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools of the West Side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites or Other Minorities; thus, all pupils projected to be transported in this program are Black and Hispanic pupils.

In brief, the Chart shows that:

- Under Plan A the number of PWT pupils in 1980-81 would be 20,000 (or 5% of all Black and Hispanic pupils). The corresponding figure for Plan B would be 19,000 (also 5%).
- Of the Plan A total in 1980-81, 12,000 (or 62%) of PWT pupils would be Black, and 8,000 (or 38%) would be Hispanic. The Plan B results would be 12,000 (or 61%) Blacks, and 7,000 (or 39%) Hispanics.
- In 1984-85, both Plans would place 15,000 pupils (or 3% of all Black and Hispanic pupils) in PWT.
- Of the total in 1984-85, both Plans would create a PWT population including 9,000 (or 61%) Blacks, and 6,000 (or 39%) Hispanic pupils.

Overall, the absolute number of PWT participants in both Plans is projected to drop by about one quarter by 1984-85, producing a percentage drop from 5% of all Black and Hispanic pupils to 3% over the period. The decrease in participation would be in approximately equal proportions in the 1980-81 Black and Hispanic PWT participant totals, but because the Hispanic population would be growing much faster, the same absolute numbers of Hispanics become a smaller share of total Hispanic enrollment.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a small increase in the number of pupils transported under this program. The current total is 17,000 (or 5% of all Black and Hispanic pupils), while the Plans would produce 19-20,000 (still 5%). The District has no data with regard to the balance between Black and Hispanics in the current program, so no further comparison is possible.

As is evident from the Chart, the two Plans would have almost identical effects upon PWT in the latter years of the period. The projections are so close that rounding them to thousands, as is done above, makes them indistinguishable. This reflects the fact that the difference between the Plans lies in the number of White returnees. The only effects of this difference for PWT are changes in the number of spaces available at predominantly White schools for which the Black and Hispanic pupils that use this program may apply. In 1980-81 this makes a difference of less than 1,000 pupils in favor of Plan A. (Note that this increase, even when combined with a similar increase in transportation of Minority pupils to Magnets, is not large enough to thin out the White returnees sufficiently to desegregate as many schools in 1980-81 as does a smaller set of increases in Plan B, where no returnees are involved.) By 1984-85, the difference between the Plans makes almost no difference at all in PWT effects.

Average One-Way Travel Times

Chart 15 presents the average one-way travel times experienced by all pupils transported under the all-voluntary Plans. In brief, it shows that

-- Plan A would result in 1980-81 in average travel times of 39 minutes for elementary school pupils, 48 minutes for junior high pupils, and 49 minutes for high schoolers. The corresponding figures for Plan B are 40 minutes, 50 minutes, and 50 minutes.

-- The 1980-81 Plan A figures would break down to an average of 50 minutes for all Black pupils, 39 minutes for all Hispanics, 40 minutes for Other Minorities, and 35 minutes for Whites. Plan B results would divide into an average of 51 minutes for all Black pupils, 39 minutes for all Hispanics, 40 minutes for Other Minorities, and 35 minutes for Whites.

-- In 1984-85, Plan A would generate average travel times of 43 minutes for elementary school pupils, 53 minutes for junior high pupils, and 52 minutes for senior high pupils. The corresponding figures for Plan B are 44 minutes, 53 minutes, and 52 minutes.

-- The 1984-85 Plan A figures would break down to an average of 54 minutes for all Black pupils, 43 minutes for all Hispanics, 40 minutes for Other Minorities, and 34 minutes for Whites. The 1984-85 Plan B figures would break down to an average of 55 minutes for all Black pupils, 44 minutes for all Hispanics, 41 minutes for Other Minorities, and 34 minutes for Whites.

Overall, the two Plans would yield slightly longer system-wide average travel times over the period, moving from 44-45 minutes in 1980-81 to 48-49 minutes in 1984-85. Pupils at each level would experience this lengthening in both Plans in approximately equal proportions. The average burden would remain substantially higher for junior and senior high schoolers than for elementary pupils. Also, Minorities would continue to experience substantially higher averages than Whites, with Blacks encountering by far the highest average. By 1984-85 the average travel time for a Black junior high school pupil would be 60 minutes. In general, Blacks transported would spend some 60% longer enroute to school than the time spent in travel by the average White pupil.

Again the two Plans are nearly identical in their travel time effects. The gap between them is never more than one minute for any group in any year.

Chart 16 projects the Magnet component of average travel times, while Chart 17 does the same for the PWT component. They are self-explanatory.

Summary of Quantifiable Findings

	Plan A	Plan B
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	- 0 (or 0%)	- 44,000 (or 8%)
Projected total	579,000	535,000
1984-85		
Expected	597,000	597,000
Flight	- 0 (or 0%)	- 32,000 (or 5%)
Projected total	597,000	565,000
Desegregated Schools		
1980-81	120 (or 18%)	140 (or 21%)
1984-85	111 (or 16%)	99 (or 15%)

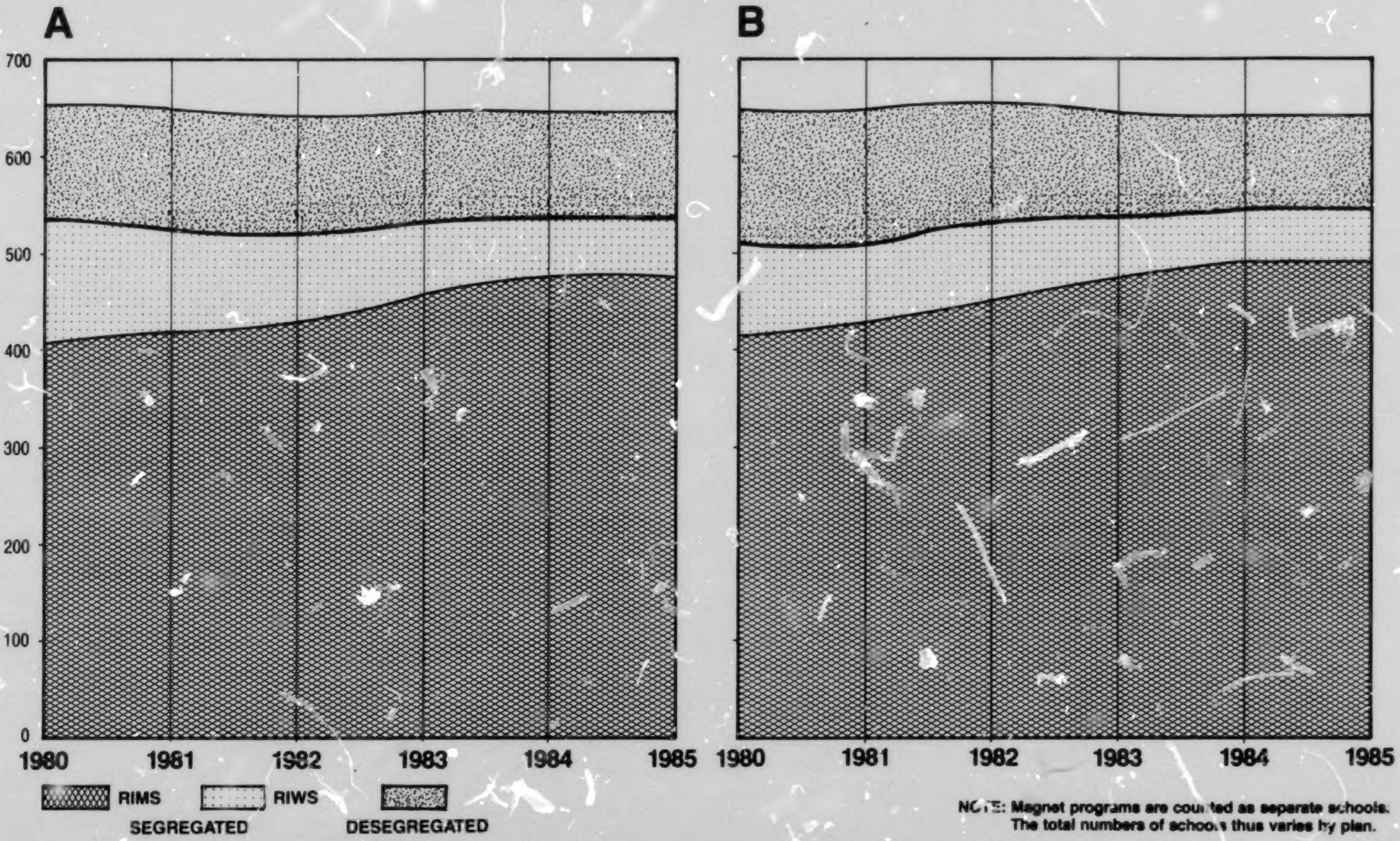
	Plan A	Plan B
Segregated Schools		
1980-81		
RIWS	128	54
RIMS	409	494
Total	537	514
1984-85		
RIWS	62	54
RIMS	480	494
Total	542	548
Desegregated Pupils		
1980-81	109,000 (or 19%)	118,000 (or 22%)
1984-85	88,000 (or 15%)	81,000 (or 14%)
Segregated Pupils		
1980-81	470,000 (or 81%)	417,000 (or 78%)
1984-85	508,000 (or 85%)	483,000 (or 86%)
Magnet Schools		
1980-81	56 (or 9%)	53 (or 8%)
1984-85	52 (or 8%)	47 (or 7%)
Magnet Pupils		
1980-81		
Desegregated	2,461 (or 24%)	2,045 (or 22%)
Segregated	7,912 (or 76%)	7,475 (or 78%)
Total	10,373	9,520
1984-85		
Desegregated	1,828 (or 20%)	1,499 (or 19%)
Segregated	7,198 (or 80%)	6,759 (or 82%)
Total	9,026	8,258

	Plan A	Plan B
PWT Pupils		
1980-81		
Black	12,000 (or 62%)	12,000 (or 61%)
Hispanic	8,000 (or 38%)	7,000 (or 39%)
Total	20,000	19,000
1984-85		
Black	9,000 (or 61%)	9,000 (or 61%)
Hispanic	6,000 (or 39%)	6,000 (or 39%)
Total	15,000	15,000
Total Pupils Transported		
1980-81		
Voluntary	30,000 (or 100%)	29,000 (or 100%)
Mandatory	0 (or 0%)	0 (or 0%)
Total	30,000	29,000
1984-85		
Voluntary	24,000 (or 100%)	23,000 (or 100%)
Mandatory	0 (or 0%)	0 (or 0%)
Total	24,000	23,000
Average Travel Times		
1980-81		
Overall	44	45
Black	50	51
Hispanic	39	39
Other Minority	40	40
White	35	35
1984-85		
Overall	48	49
Black	54	55
Hispanic	43	55
Other Minority	40	41
White	34	35

CHARTS FOR PART IV

CHART 4

ALL-VOLUNTARY PLANS
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

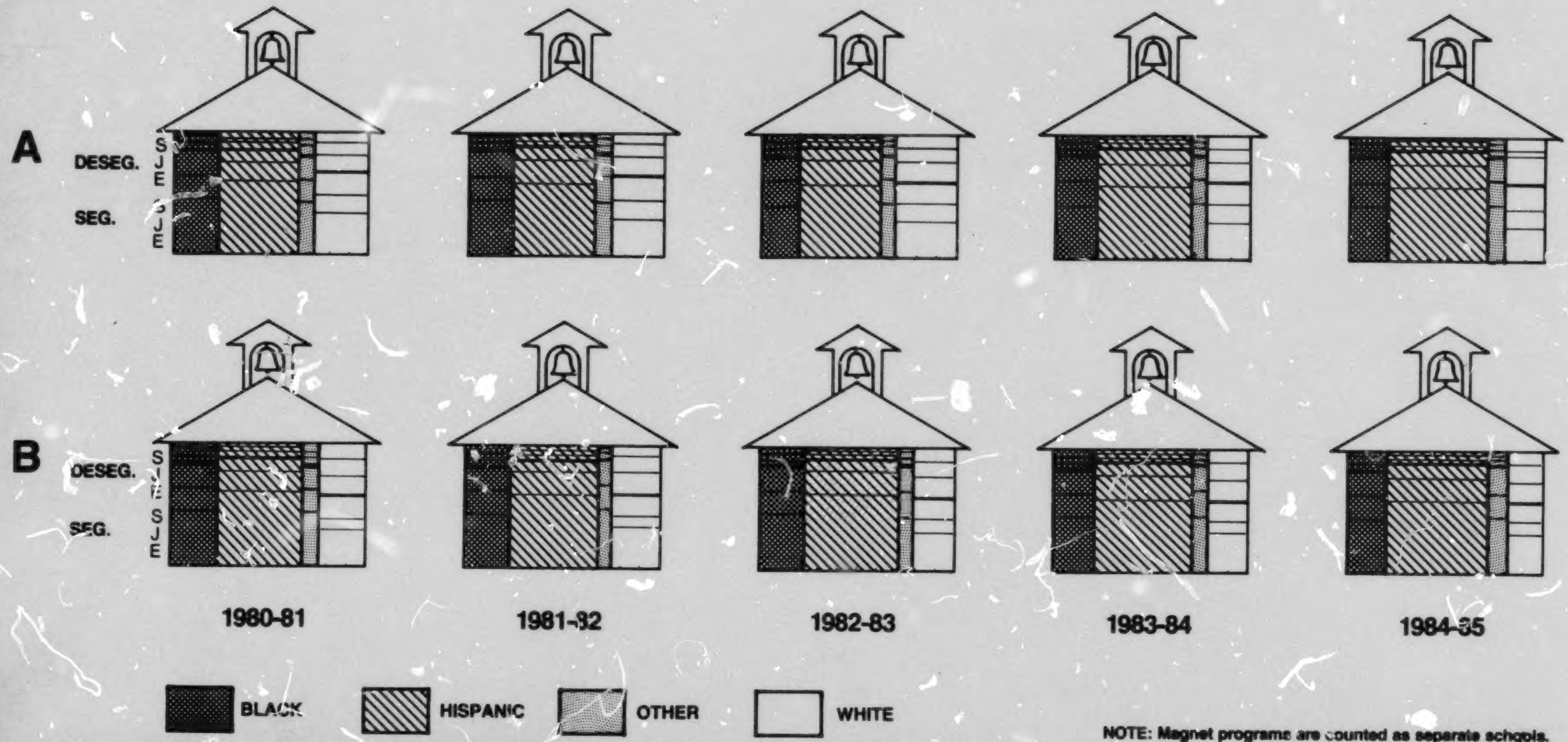


NOTE: Magnet programs are counted as separate schools. The total numbers of schools thus varies by plan.

CHART 5

ALL-VOLUNTARY PLANS

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

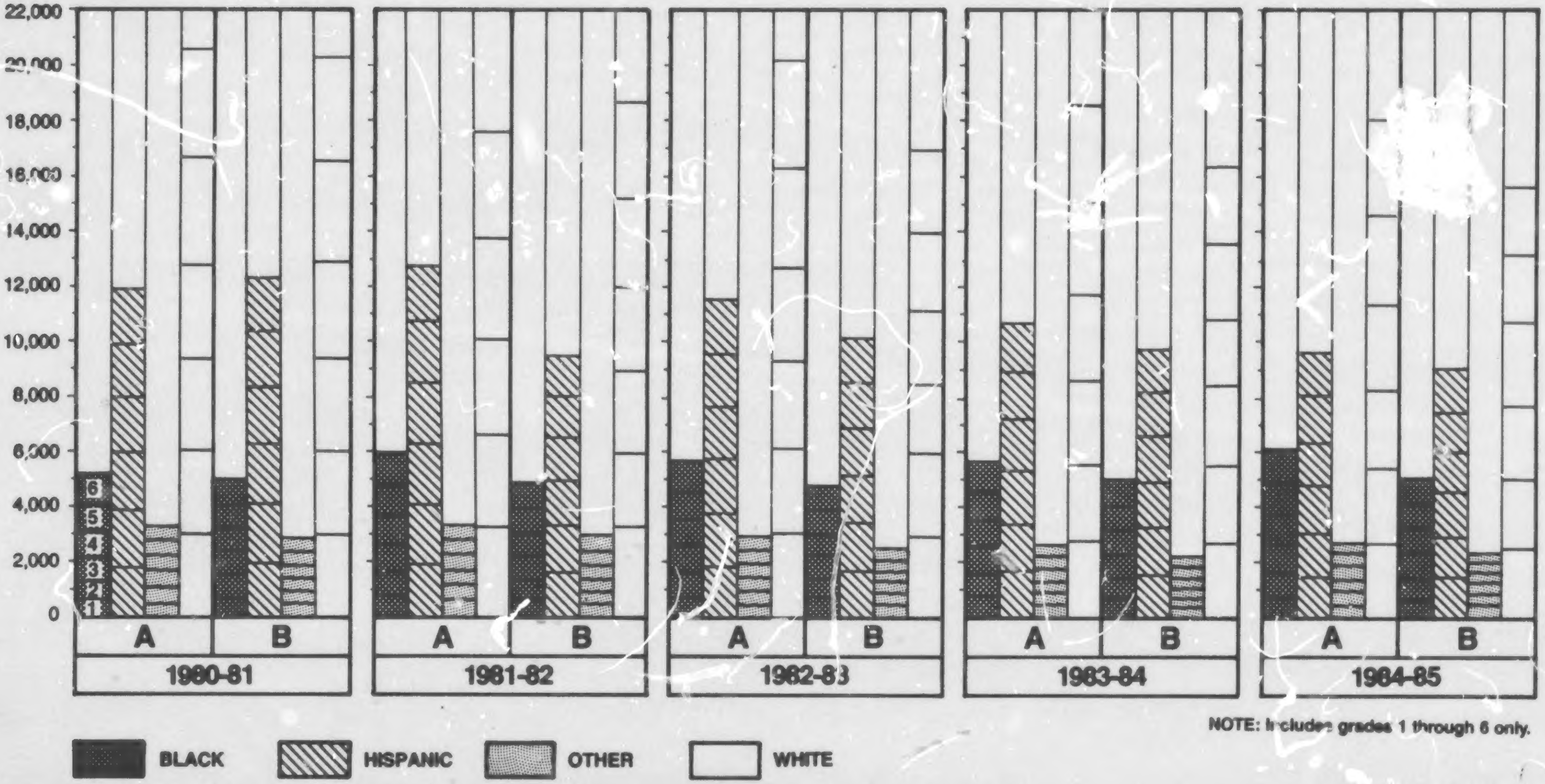


NOTE: Magnet programs are counted as separate schools.

CHART 6

ALL-VOLUNTARY PLANS

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

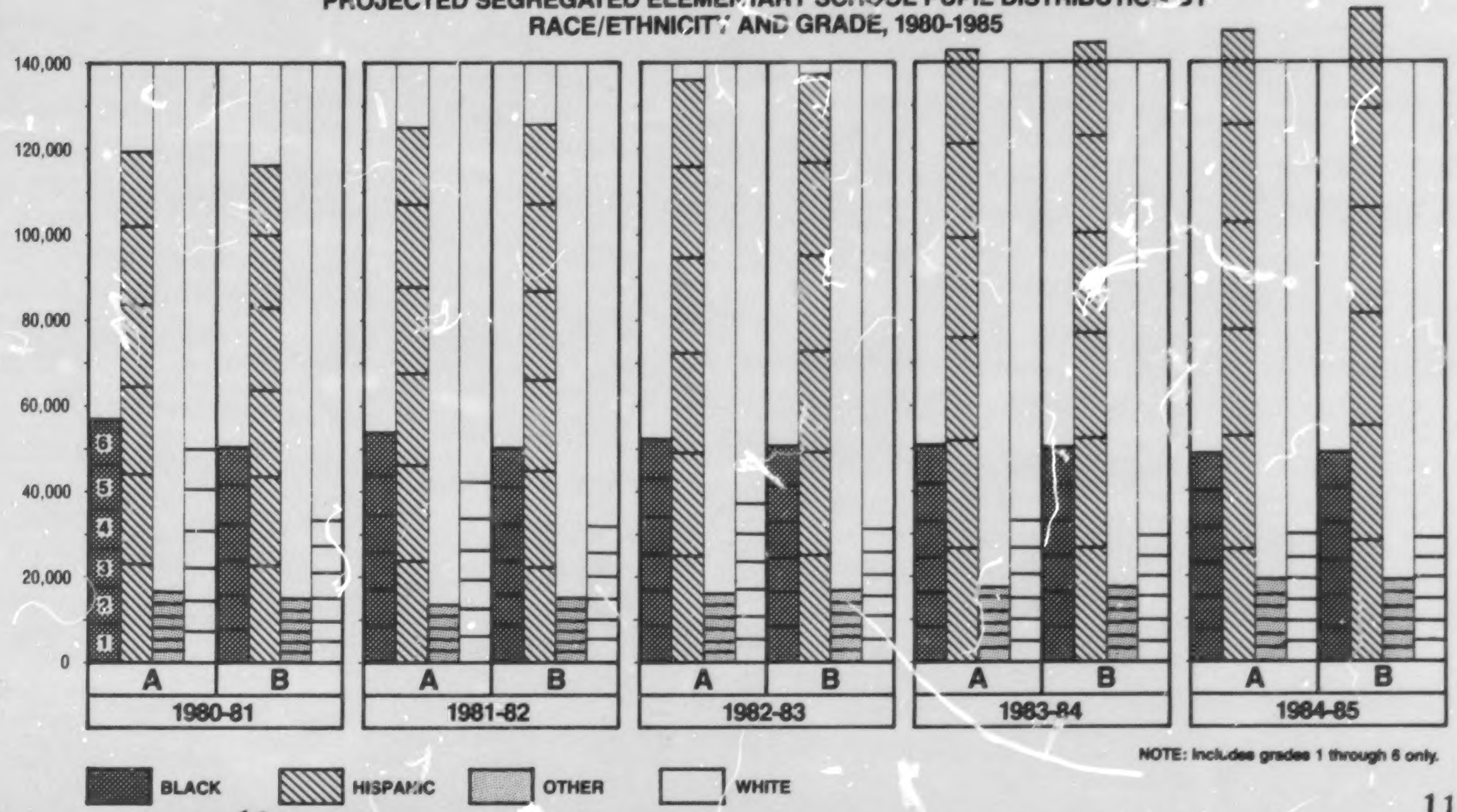


NOTE: Includes grades 1 through 6 only.

CHART 6 A

ALL-VOLUNTARY PLANS

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



NOTE: Includes grades 1 through 6 only.

CHART 7

ALL-VOLUNTARY PLANS

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

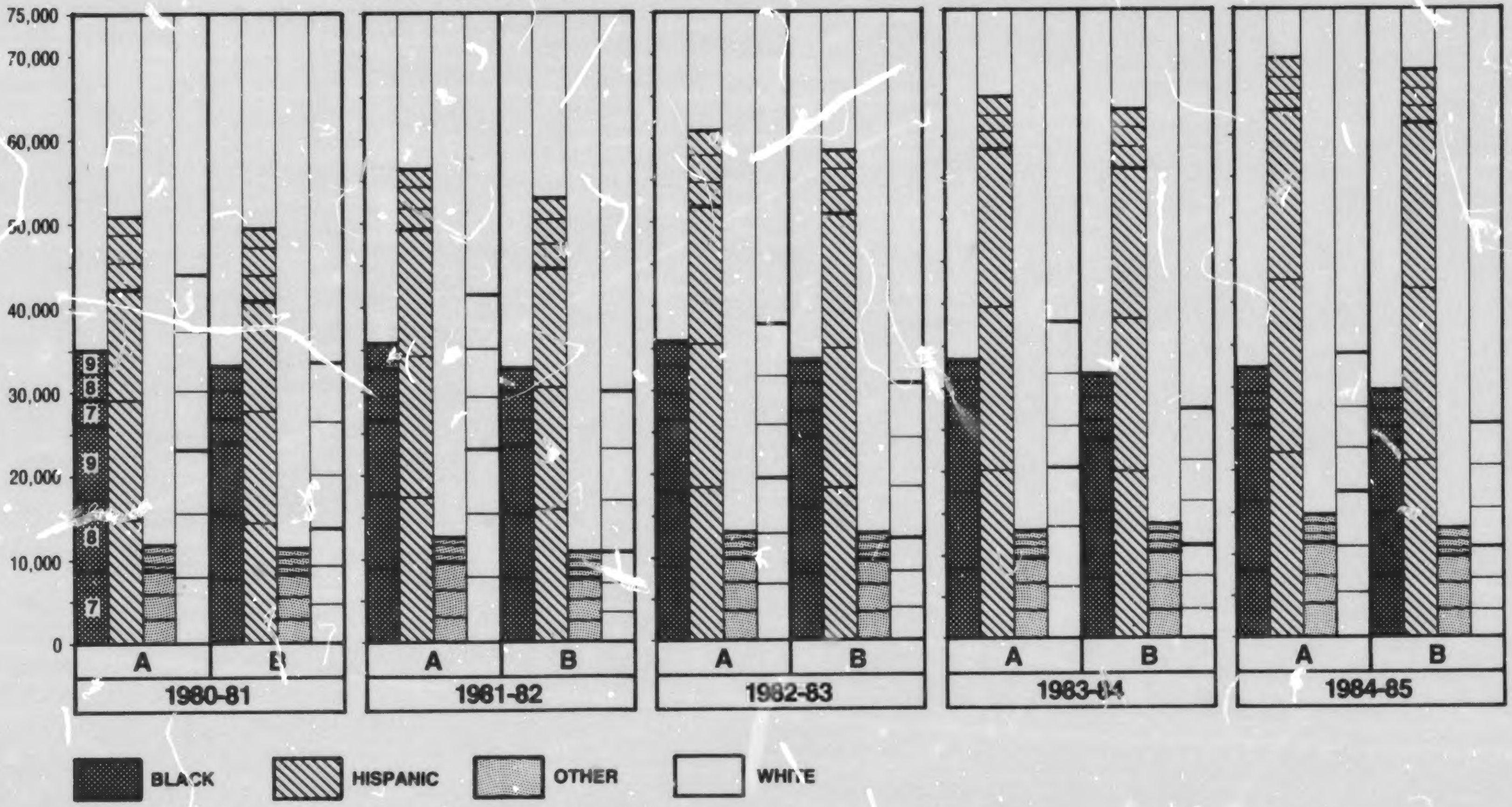
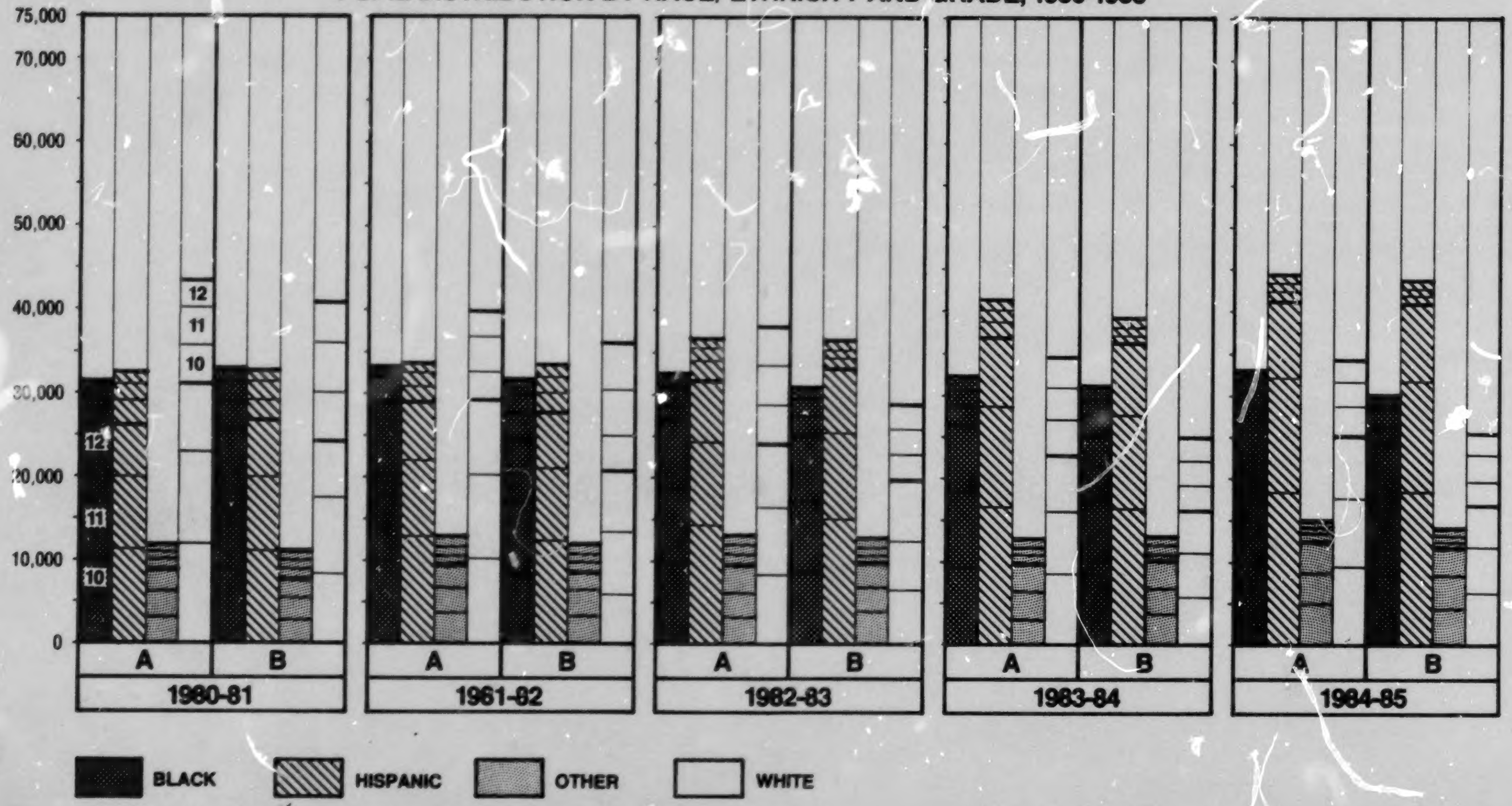


CHART 8

ALL-VOLUNTARY PLANS

PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985



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94

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CHART 9

ALL-VOLUNTARY PLANS
PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

SCHOOL YEAR	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
	A	B	A	B	A	B	A	B	A	B
1980-81	30	14	60	56	77	83	59	59	239	245
1981-82	24	12	46	45	88	90	0	42	256	274
1982-83	19	11	39	41	81	78	42	41	282	292
1983-84	19	11	29	29	78	71	41	46	296	305
1984-85	18	14	17	19	77	68	38	33	313	328

NOTE: Magnet programs are counted as separate schools.

CHART 10

ALL-VOLUNTARY PLANS

PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	A	B	A	B	A	B	A	B	A	B
1980-81	2	0	7	4	25	28	16	12	44	49
1981-82	2	0	7	3	23	26	13	8	49	55
1982-83	2	0	6	3	22	22	10	11	53	54
1983-84	2	0	5	3	19	20	11	10	56	57
1984-85	1	0	5	3	18	19	10	7	58	60

NOTE: Magnet programs are counted as separate schools.

CHART 11

ALL-VOLUNTARY PLANS
PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**
1980-81	13	13	16	11	18	23	8	7	43	44
1981-82	13	11	14	11	18	23	8	8	45	45
1982-83	12	10	11	10	20	20	7	9	48	49
1983-84	11	9	11	10	19	19	8	9	49	51
1984-85	11	9	10	9	16	12	10	11	51	55

NOTE: Magnet programs are counted as separate schools.

CHART 12

ALL-VOLUNTARY PLANS

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

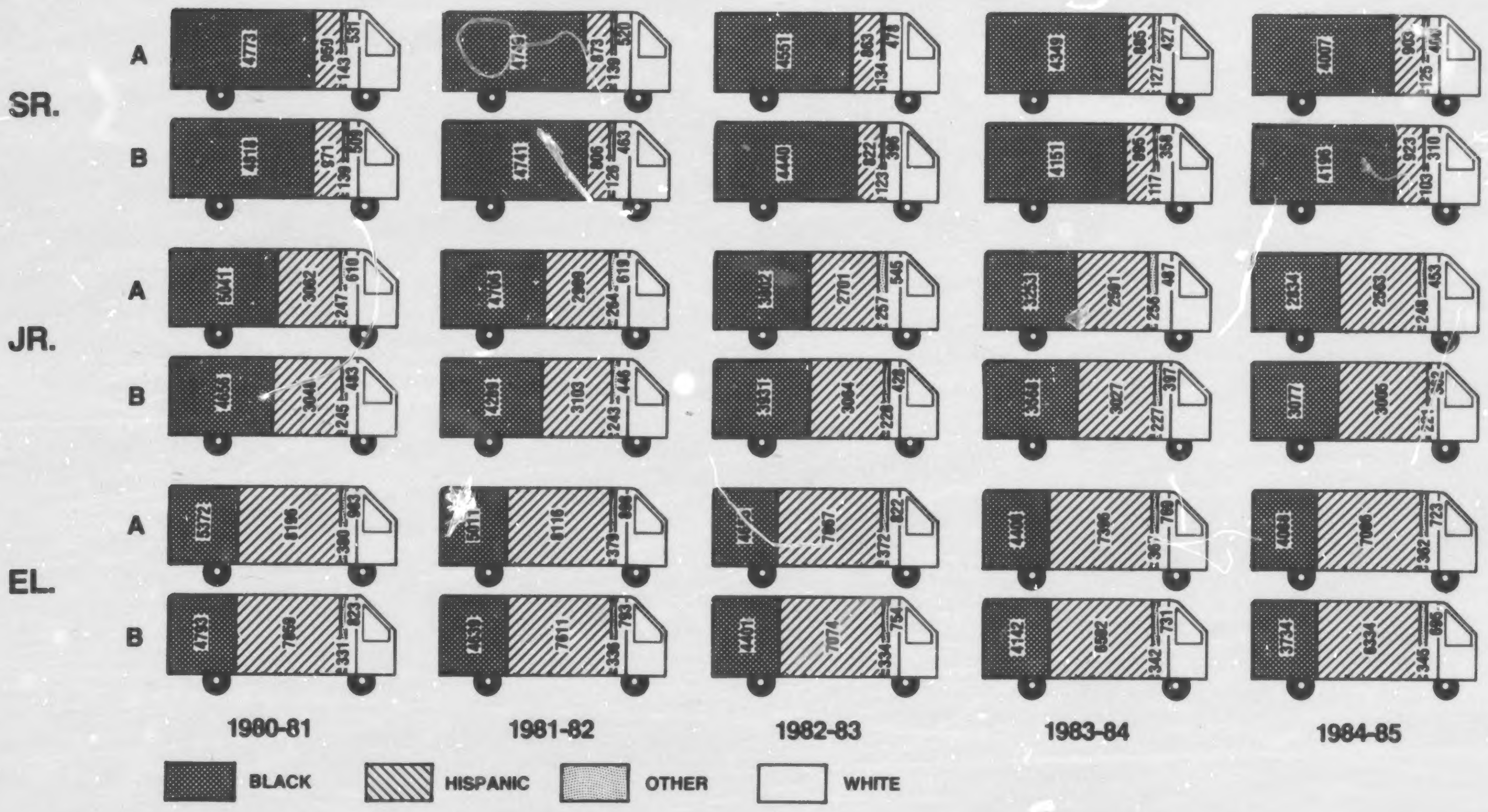


CHART 13

ALL-VOLUNTARY PLANS

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

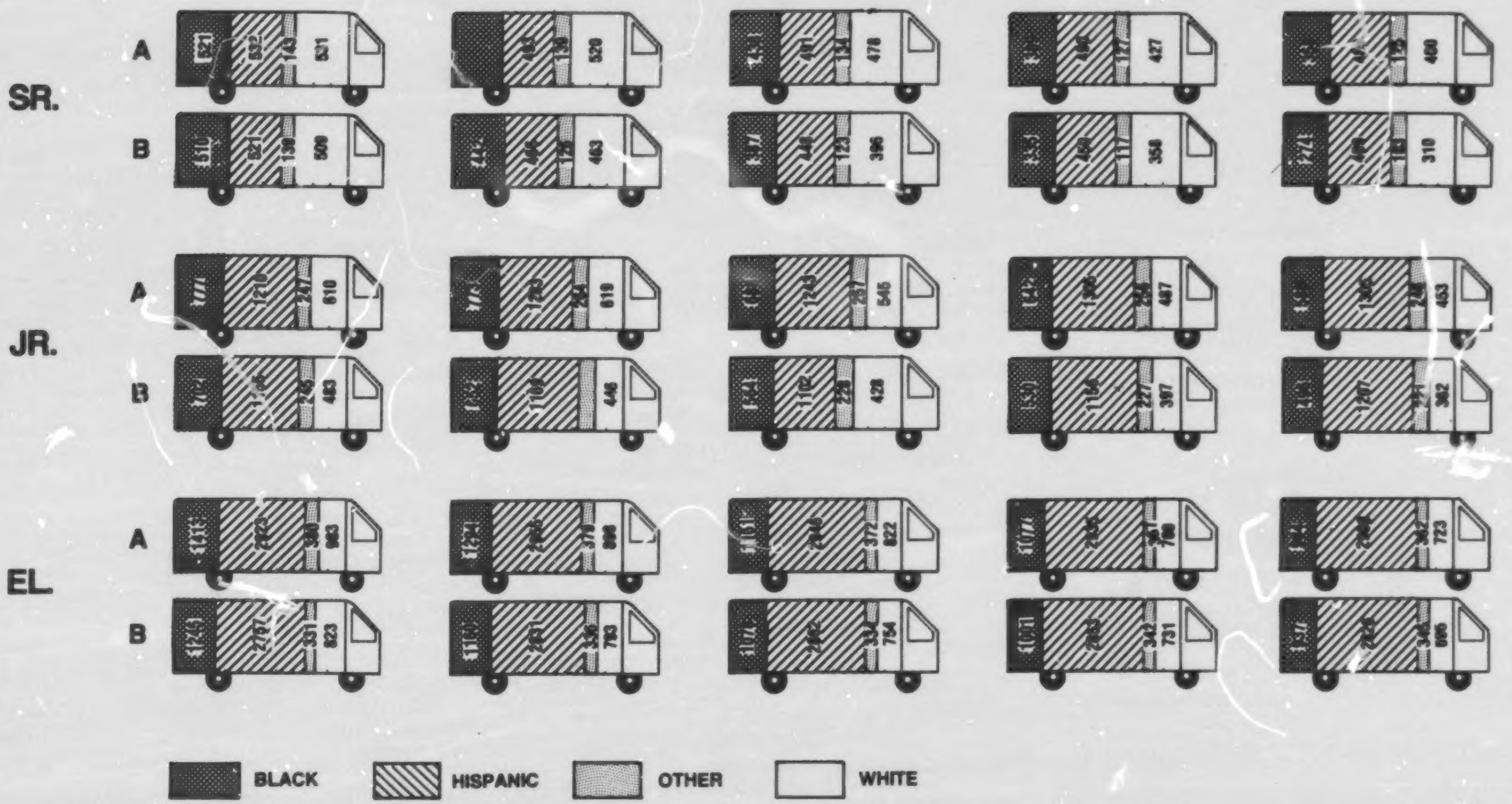


CHART 14

ALL-VOLUNTARY PLANS

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED UNDER PWT PROGRAM, BY RACE/ETHNICITY AND LEVEL, 1980-1985

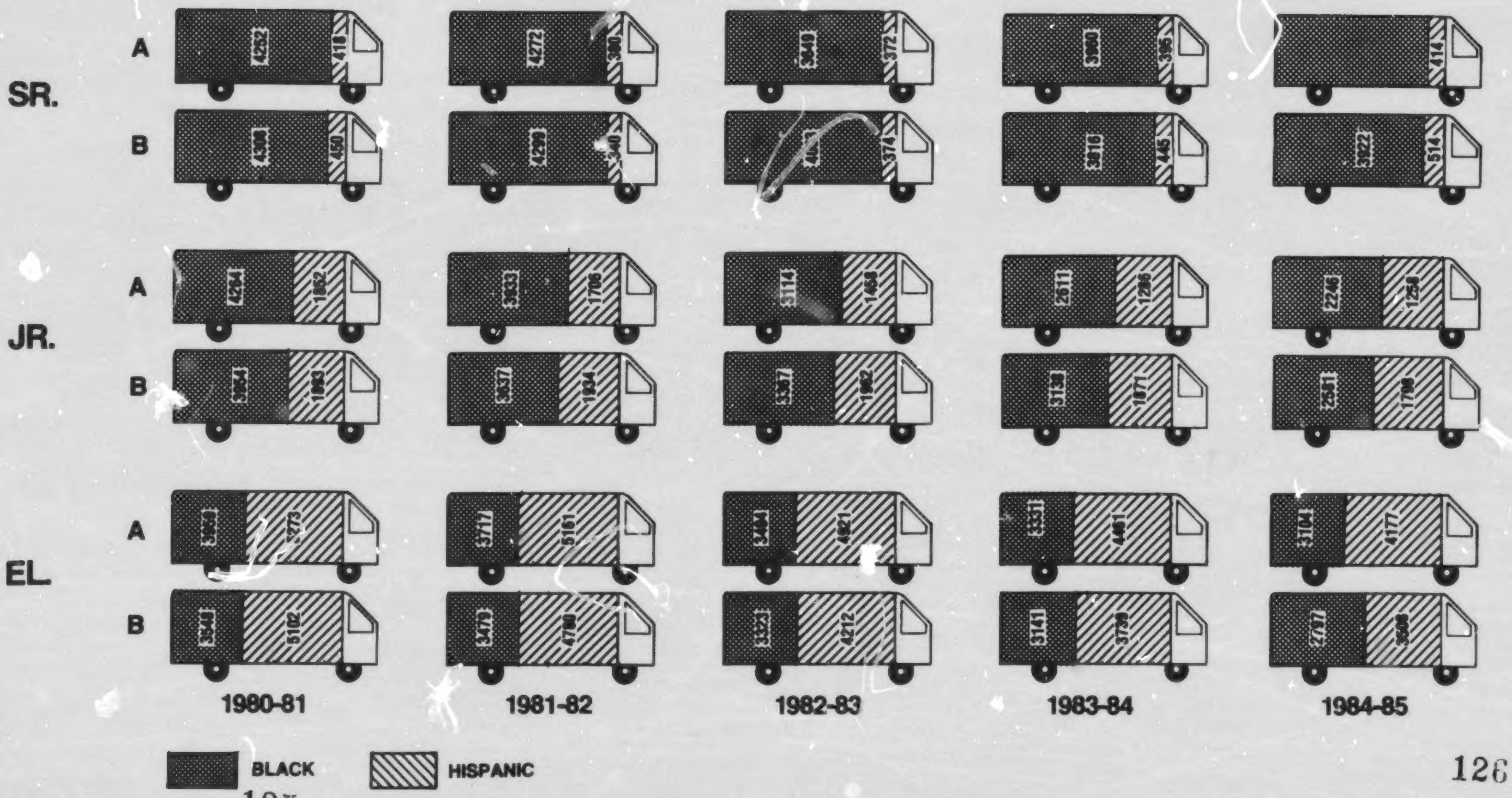
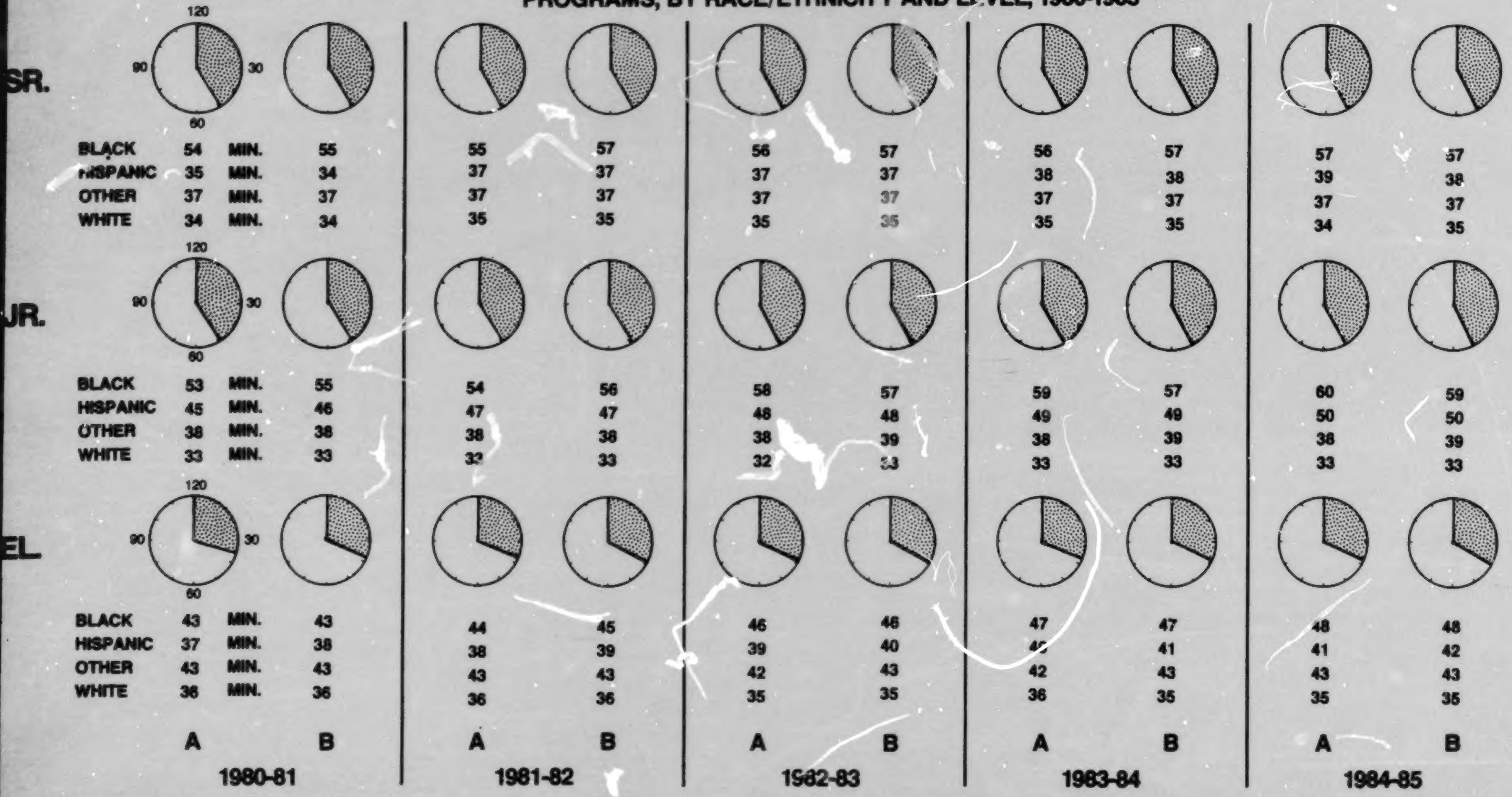


CHART 15

ALL-VOLUNTARY PLANS

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

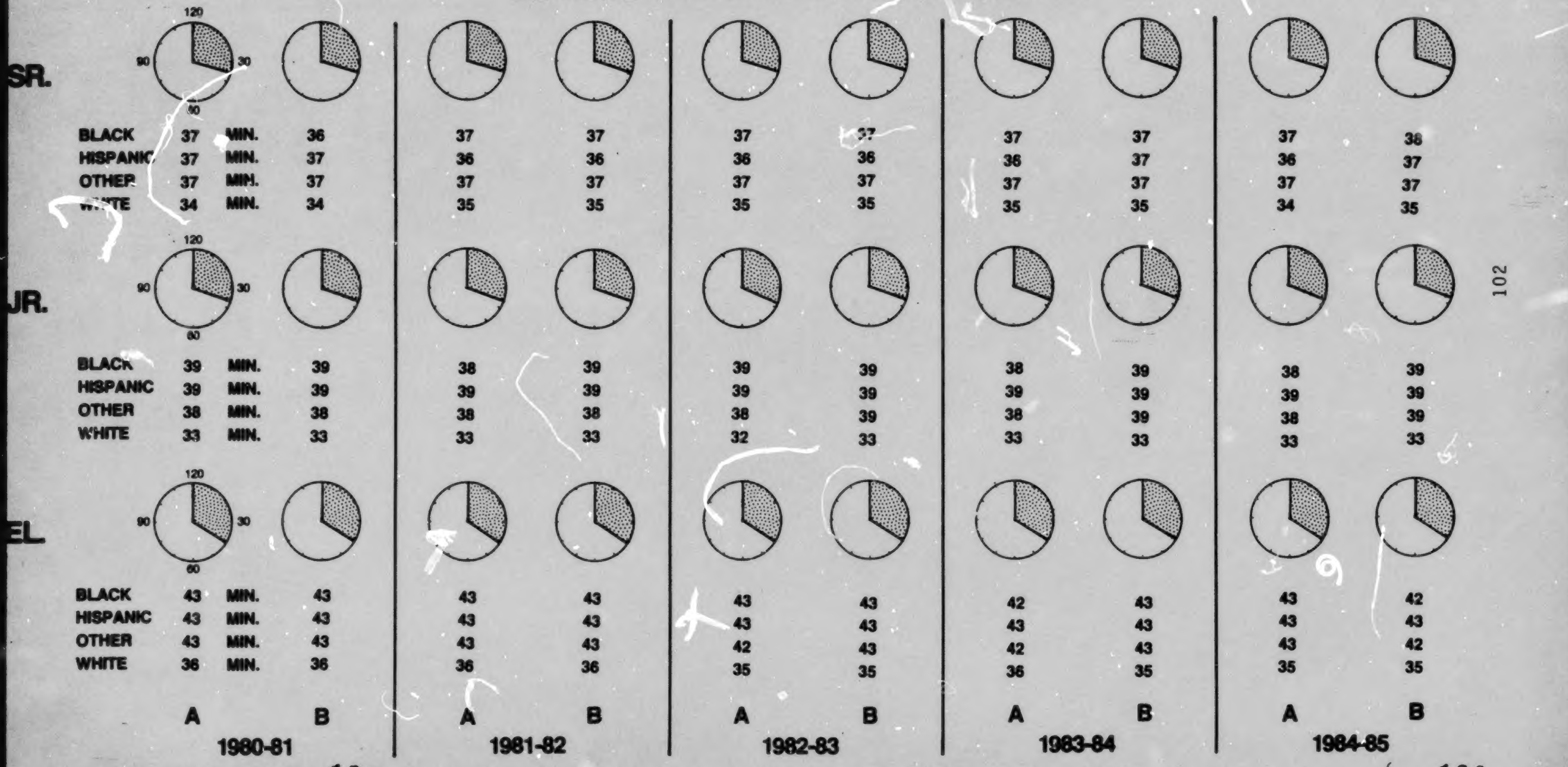


		1980-81 A	1980-81 B	1981-82 A	1981-82 B	1982-83 A	1982-83 B	1983-84 A	1983-84 B	1984-85 A	1984-85 B
SR.	BLACK	54 MIN.	55	55	57	56	57	56	57	57	57
	HISPANIC	35 MIN.	34	37	37	37	37	38	38	39	38
	OTHER	37 MIN.	37	37	37	37	37	37	37	37	37
	WHITE	34 MIN.	34	35	35	35	35	35	35	34	35
JR.	BLACK	53 MIN.	55	54	56	58	57	59	57	60	59
	HISPANIC	45 MIN.	46	47	47	48	48	49	49	50	50
	OTHER	38 MIN.	38	38	38	38	39	38	39	38	39
	WHITE	33 MIN.	33	33	33	32	33	33	33	33	33
EL.	BLACK	43 MIN.	43	44	45	46	46	47	47	48	48
	HISPANIC	37 MIN.	38	38	39	39	40	[illegible]	41	41	42
	OTHER	43 MIN.	43	43	43	42	43	42	43	43	43
	WHITE	36 MIN.	36	36	36	35	35	36	35	35	35

CHART 16

ALL-VOLUNTARY PLANS

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

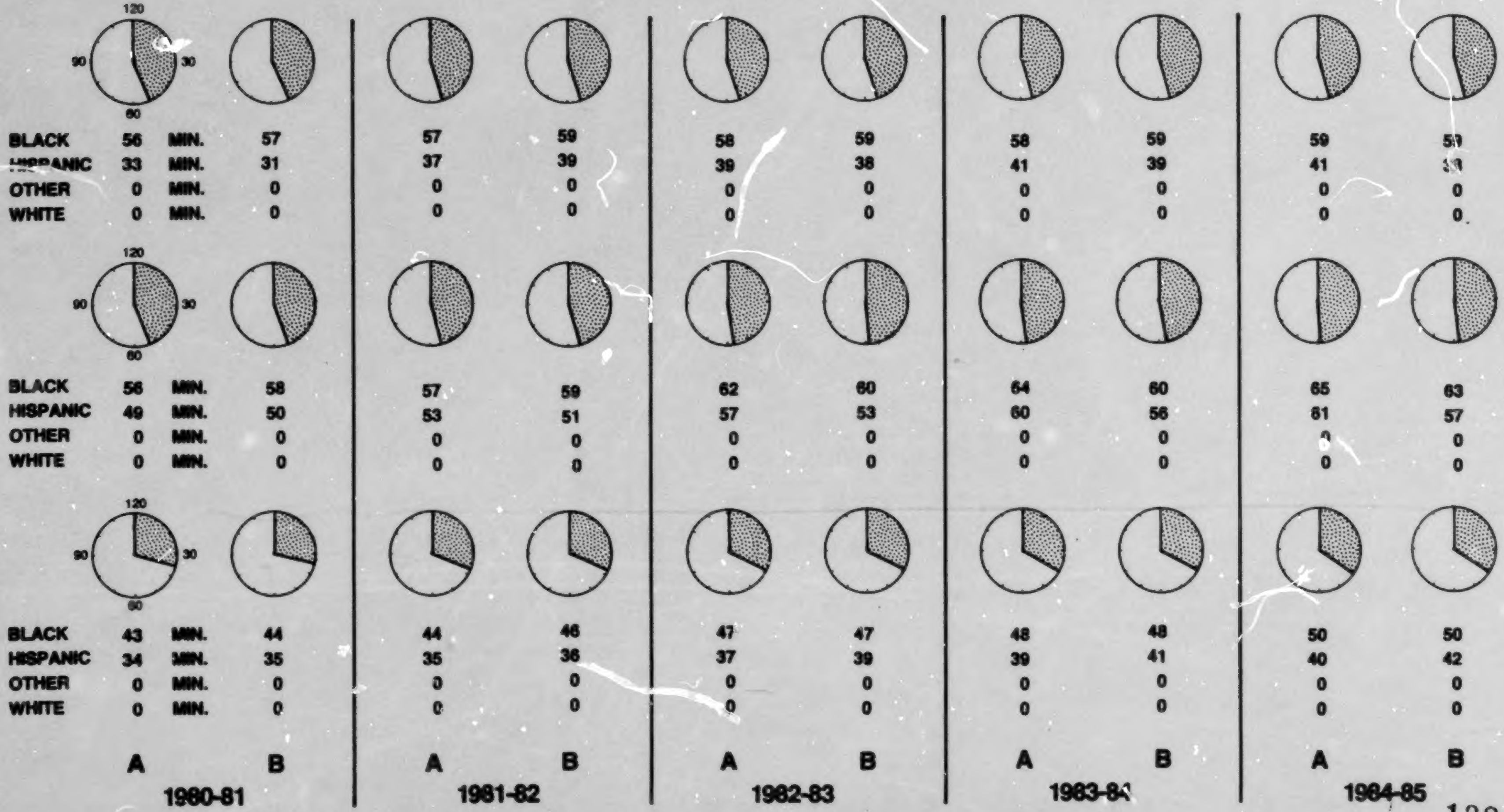


		1980-81 A	1980-81 B	1981-82 A	1981-82 B	1982-83 A	1982-83 B	1983-84 A	1983-84 B	1984-85 A	1984-85 B
SR.	BLACK	37 MIN.	36	37	37	37	37	37	37	37	38
	HISPANIC	37 MIN.	37	36	36	36	36	36	37	36	37
	OTHER	37 MIN.	37	37	37	37	37	37	37	37	37
	WHITE	34 MIN.	34	35	35	35	35	35	35	34	35
JR.	BLACK	39 MIN.	39	38	39	39	39	38	39	38	39
	HISPANIC	39 MIN.	39	39	39	39	39	39	39	39	39
	OTHER	38 MIN.	38	38	38	38	39	38	39	38	39
	WHITE	33 MIN.	33	33	33	32	33	33	33	33	33
EL	BLACK	43 MIN.	43	43	43	43	43	42	43	43	42
	HISPANIC	43 MIN.	43	43	43	43	43	43	43	43	43
	OTHER	43 MIN.	43	43	43	42	43	42	43	43	42
	WHITE	36 MIN.	36	36	36	35	35	36	35	35	35

CHART 17

ALL-VOLUNTARY PLANS

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED UNDER PWT PROGRAM BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 A		1980-81 B	1981-82 A	1981-82 B	1982-83 A	1982-83 B	1983-84 A	1983-84 B	1984-85 A	1984-85 B
SR.	BLACK	56	MIN.	57	57	59	58	59	58	59	59	59
	HISPANIC	33	MIN.	31	37	39	39	38	41	39	41	38
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
JR.	BLACK	56	MIN.	58	57	59	62	60	64	60	65	63
	HISPANIC	49	MIN.	50	53	51	57	53	60	56	61	57
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
EL.	BLACK	43	MIN.	44	44	46	47	47	48	48	50	50
	HISPANIC	34	MIN.	35	35	36	37	39	39	41	40	42
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0

V. VOLUNTARY/MANDATORY PROTOTYPE

Definition

The objective of this prototype is desegregation of the maximum number of schools possible through use of both voluntary and mandatory policy instruments, while observing (i) ceilings on the travel time experienced by any mandatorily transported pupil, and (ii) restrictions on the rate at which grades eligible for mandatory assignment are added to the grades (4-8) already eligible in the plan in force in 1979-80.

Programmatic Instruments Employed

The prototype assumes that the objective will be pursued through three programs: Magnet schools, the Permits with Transportation (PWT) program, and the formation, mandatorily if necessary, of the Pair/Cluster/Midsite arrangements between LAUSD schools that would result in the largest number of Desegregated institutions that is mathematically possible. The prototype does not require -- but also does not preclude -- the simultaneous introduction of other voluntary programs designed to accomplish racial/ethnic contact between representatives of the major groupings. Possible additions of this nature are described at the outset of Part IV. They are not included in the accounting primarily because they are not advanced as means of desegregating schools, and would therefore not affect achievement of the objective of the prototype.

Constraints and Specific Decision Rules

The general decision rules built into the sub-models for projecting Magnet, PWT, and Pair/Cluster/Midsite participation are described in Part II. In addition, all voluntary/mandatory variations impose specific limitations on travel times and grade accretion, which are outlined below in the discussion of the differences between the variations simulated. On the voluntary side, the submodel employed differs from the one utilized in Part IV in that it adds recent experience with systems in which the option to volunteering for a Magnet or PWT berth is assignment to a mandatory Pair, Cluster, or Midsite desegregation arrangement. However, all of the specific rules used in Part IV, both those concerned with racial/ethnic balance and those related to administrative feasibility, are utilized in the voluntary element of these projections as well, although they need not be reprinted here.

On the mandatory side, it bears repeating that no special effort is made here to preserve the Pairs/Clusters/Midsites formed in 1978-80; the charge is to identify the mathematically optimal linkages which result in the maximum number of Desegregated schools. It is also important to reiterate that the original mandatory linking of schools is assumed to be performed in the spring of 1980, using 1979-80 data, and the entire process is repeated anew in the spring of 1983. Thus, many Pairs, Clusters, and Midsites change in 1983, as demographic forces change the balance of the pupil population.

Variations C1 and C2

Basic Ground Rules

Variations C1 and C2 fundamentally represent a continuation of the theme of the current LAUSD desegregation plan, although the mandatory element is switched to the aforementioned mathematically-determined optimum linkages. The two variations share the following bounds:

- Pupils who wish to volunteer for Magnet and PWT programs are allowed to do so before mandatory assignments are made, and the resulting racial/ethnic effects on the receiving schools are taken into account in determining the initial balance of the school and, thereby, whether it is eligible for a mandatory linkage.
- Only pupils in the currently eligible grades (4-8) are subject to mandatory assignment.

-- Schools are exempted from mandatory assignment if, *after* the assignment of Magnet and PWT pupils, they contain more than 30% each of White and Combined Minority enrollees.

Difference between the Variations

Plans C1 and C2 differ from each other in one respect:

-- Plan C1 imposes a maximum travel time limitation of 30 minutes for any mandatorily-transported pupil.

-- Plan C2 imposes a maximum travel time limitation of 45 minutes for any mandatorily-transported pupil.

Number of Segregated/Desegregated Schools

Chart 18 shows the numbers of schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. Since Magnet programs are counted (as they are in current District practice) as separate schools, the total number of schools rises and falls as Magnets are formed and closed.

In brief, as the Chart shows:

-- In Plan C1 the number of *Desegregated* schools starts at 155 (or 24%) in 1980-81 and falls to 143 (or 22%) by 1984-85. The corresponding numbers for Plan C2 are 177 (or 27%) and 151 (or 23%).

-- In Plan C1 the number of *Segregated* schools starts at 504 (or 76%) in 1980-81 and rises slightly to 513 (or 78%) by 1984-85. The corresponding numbers for Plan C2 are 484 (or 73%) and 506 (or 77%).

-- In Plan C1, *within the "Segregated" category*, the number of RIWS declines from 100 to 40 by 1985, while RIMS increase from 404 to 473.

The corresponding figures for Plan C2
are 79 to 34 in the case of RIWS, and
405 to 472 in the case of RIWS.

Overall, the broadest finding of the simulation is that, given the parameters stated herein, neither Plan will desegregate more than 27% of the schools in 1980-81, nor retain more than 23% of them in that category in 1984-85. In both instances the prospect is for stasis in the first two years, followed by a steady decline in the proportion of Desegregated schools as the projection period proceeds.

The simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would range from a non-trivial decline to a small increase in the number of Desegregated schools. Plan C1 would lower the current number from 173 to 155, a reduction of 10%. Plan C2, on the other hand, would increase the current actual number to 177, a 2% enlargement. However, both Plans would accomplish substantial additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan C1 would desegregate 85 more schools in 1980-81 and 80 more in 1984-85 than would be expected in the absence of a plan. Plan C2 would desegregate 107 more schools in 1980-81 and 88 more in 1984-85 than would demographic forces operating without intervention by a plan.

However, the difference between the two Plans -- the lower travel time ceiling in Plan C1 -- has important effects. After holding absolutely steady in their desegregating effects for the first two years, the two begin to converge in the third year and continue to do so throughout the period. The higher travel ceiling in Plan C2 always results in more Desegregated schools, but the margin over C1 steadily declines in these last three years. The difference in favor of Plan C2 is 22 Desegregated schools in 1981-82, 17 schools in 1982-83, 10 schools in 1983-84, and eight schools in 1984-85. This reflects the fact that, as the number of Whites in the system dwindles, the 15-minute difference in allowed travel time makes less and less difference to the number of Desegregated schools achieved. The convergence is even more pronounced with respect to the evolution of RIWS and RIMS. By 1984-85 the RIWS totals for the two Plans are only six schools apart (though they start 21 apart). The RIMS projections stay very close to each other throughout the projection period, starting and finishing only one school apart. Put another way, the effects of the two Plans within the "Segregated" category of schools are virtually identical for RIMS and rapidly convergent in the case of RIWS.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by these two variations involve substantial pupil flight. And, since more schools are involved in mandatory transportation in one Plan than in the other, the flight estimates for the two differ. For Plan C1 the total 1984-85 student body is projected to be 572,000 pupils, of whom 120,000 (or 21%) would be Black, 299,000 (or 52%) would be Hispanic, 48,000 (or 8%) would be Other Minorities, and 105,000 (or 18%) would be White. The total pupil population represents a loss of 25,000 (or 4%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 13% drop below the demographic projection.

Plan C2 is projected to produce a total pupil population of 571,000 in 1984-85, of whom 120,000 (or 21%) would be Black, 300,000 (or 52%) Hispanic, 48,000 (or 8%) Other Minorities, and 103,000 (or 18%) White. The loss from demographic expectations would be 25,000 pupils (or 4%) below demographic projections. Rounding disguises the fact that Plan C2 would involve about 600 more "fleers" than Plan C1 because flight is a function of the probability that one's school (and grade) will be mandatorily assigned, and Plan C2 involves more such schools.

Chart 19 depicts the numbers of pupils attending schools in each category under each Plan during the projection period. In brief, it shows that:

- -- In Plan C1 the total number of pupils in Desegregated schools starts at 125,000 (or 23%) in 1980-81 and declines to 110,000 (or 20%) in 1984-85. The corresponding figures for Plan C2 are 135,000 (or 25%) and 113,000 (or 20%).
- -- In Plan C1 the number of pupils in Segregated schools begins at 431,000 (or 78%) in 1980-81 and rises to 462,000 (or 81%) in 1984-85. The corresponding figures for Plan C2 are 415,000 (or 78%) and 459,000 (or 80%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 135,000 (or 25%), and that would be accomplished only in the first year. By 1984-85, this number is projected to shrink to the 110-113,000 range (or 20%). In both instances, the forecast is one of initial stasis for two years, followed by steady decline through the period.

However, the model suggests that the immediate effect of introduction of either Plan, as compared to actual conditions in 1979-80, would involve an increase in the aggregate number of pupils in Desegregated schools, despite the much lower increase (in C2) or actual decrease (C1) in the total number of such schools. Plan C1 would result in 7,000 (or 6%) more pupils in Desegregated schools in 1980-81 than are actually in such institutions in 1979-80, and Plan C2 would generate 17,000 (or 14%) more than the current level. The schools that are Desegregated by both Plans are projected to be substantially larger, on average, than those now Desegregated.

Both Plans C1 and C2 would effectuate much more d[illegible]regation of pupils than would have occurred in the absence of any plan. Plan C1 is forecast to put 61,000 (or 52%) more pupils in this situation in 1980-81 and 56,000 (or 103%) more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan C2 are 71,000 (or 60%) in 1980-81 and 59,000 (or 109%) in 1984-85.

Looking across the full projection period, the two Plans again show the converging phenomenon already described with regard to schools, but it is even more evident with respect to pupils. By 1984-85, the difference between the number of pupils in Desegregated schools in one Plan as against the other is only 3,000, and the number of high schoolers is precisely identical. Again, the model's suggestion is that 15 minutes' difference in travel ceiling becomes of virtually no significance by the end of the period, though it does matter importantly in the first two years. In 1984-85, under either Plan, no more than 20% of the LAUSD pupils would attend Desegregated schools. This would mean that the odds that a pupil would attend such a school would be about one in five, compared to the one in ten that would be predicted on the basis of demographic factors alone.

Differential Effects on Grade Levels

Charts 20, 20A, 21, and 22 present the elementary, junior high school, and high school effects of the two Plans by racial/ethnic groups. In brief, they show that:

-- Among elementary school pupils, sixth graders would make up the highest proportion (17% in Plan C1 and 16% in Plan C2) in Desegregated schools in both Plans and in all years, while first graders would comprise the least (13% in Plan C1, and 13% in Plan C2).

-- Among junior high school pupils ninth graders would lead the way with 34-36% in Plan C1 and 34-37% in Plan C2, while seventh graders trail slightly with 31-33% in both Plans.

-- Among senior high school pupils, tenth graders would be the largest group (37-39% in both Plans), while twelfth graders would be the smallest (26-27%) in both Plans.

-- Between 77% and 83% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 71-73%, and for senior high school enrollees 71-73%, but irregular in pattern.

Overall, the simulations indicate the perturbations in grade shares introduced by the restriction of mandatory transportation to grades 4-8 in these Plans. The prime agent is pupil flight from the mandatorily-transported grades, particularly in junior high schools. The percentage of participants climbs reasonably steadily as one progresses up the elementary grades. There is then a jump in the share of seventh graders, but not so large as that observed in the all-voluntary variations because flight has eliminated some of the candidates for both voluntary and mandatory transportation, and thereby limited the number of Desegregated junior highs. However, once one leaves the mandatorily-transported grades and gets to ninth grade, the share rises perceptibly. In high school, it shows the now familiar falloff in eleventh and twelfth grades after a small rise in the tenth. Still, by the end of the period only 27% of all junior high school pupils would be in Desegregated schools, with the same share of high schoolers and 17-23% of elementary school enrollees.

Racial/Ethnic Mix of Schools

Charts 23, 24, and 25 present the racial/ethnic mix of respectively, elementary, junior high, and senior high schools. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier.

In brief, these Charts indicate that:

- -- The number of elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two Plans in 1980-81 ranges from 101 (or 22% of all elementary schools) to 104 (still 22%). By 1984-85, this range changes to 11-12%.
- -- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 255 (or 55% of all elementary schools) to 233 (or 50%). By 1984-85, this range closes to 66%.
- -- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 is 25 (or 27% of all junior high schools) under both Plans. By 1984-85, this declines to 14% in both.
- -- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 43 (or 46% of all junior high schools) to 44 (or 47%). By 1984-85, this range closes to 63%.
- -- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 is 25 (or 23% of all high schools) under both Plans. By 1984-85, both Plans would result in 16%.
- -- The number of senior high schools in the bands closest to "Segregated" in 1980-81 is 56 (or 57% of all senior high schools) under both Plans. By 1984-85, both would result in 64%.
- -- The senior high schools begin the period most heavily segregated in both Plans, but give way

to the elementary schools about midway through the five years.

Overall, the pattern suggested by the model is the same as that for Segregated and Desegregated schools, indicating that the statistical definition used herein has not generated misleading results. Under both Plans, schools at all levels start the period with 22-27% of their schools in the bands closest to "Desegregated," and 46-57% in the bands closest to completely "Segregated." By the end of the five years, all levels have moved toward the "Segregated" end of the spectrum, leaving only 11-16% in the "near-Desegregated" bands and 63-66% in the "most Segregated" bands. The movement in this direction starts slowly in the first two years of the period, but then becomes reasonably steady. The travel time allowance "advantage" enjoyed by Plan C2 shows up primarily in the share of elementary schools "near Desegregated" in the early years, where it makes a positive difference of as much as 22 schools. By the end of the period, however, it would have results that are numerically indistinguishable from those of Plan C1.

Pairs/Cluster/Midsites

Forecasting the interplay between pupil flight and the Pairing/Clustering/Midsiting of schools presents formidable analytic and reporting problems. Flight may be assumed to occur after the announcement of the linkages to be established between schools, and any subsequent adjustment of those linkages triggers a different pattern of flight. It is further assumed that linkages which, because of flight and/or demographic change, will no longer result in desegregation will not be activated or maintained in years in which that is the case. The assumption in these simulations is that the District would make an initial announcement in the spring before the links would be established, that flight would become evident in the fall when pupils reported (or did not report) to school, and that only those Pairs/Clusters/Midsites that would accomplish some desegregation after flight would be activated in any year during the projection period. The model is constructed to follow this sequence.

This necessarily generates two lists of Pairs/Clusters/ Midsites: those announced and those actually activated after the extent of pupil flight is known. (Gaming strategies, in which pupils might not appear for the first week or two of school in the hope that their absence might forestall activation of the link, are ignored here.) The reader will recall from Part II that the model makes new linkage assignments twice during the period, once in the spring of 1980 and again in the spring of 1983. In both cases, the assignments are assumed to be announced then to take effect the following fall. As will be seen below, demographic changes in pupil population are so rapid that in every variation there is very little overlap between the 1980 and 1983 lists. Thus, the number of lists of Pairs/Clusters/Midsites has now grown to four, two each for the two periods. In addition, however, the model activates or deactivates each linkage each year if, because of the pattern of flight and/or demography, the link will or will not effect desegregation in at least one school. In fact, therefore, the model generates two lists -- one of announced linkages and the other of those actually activated -- for each year of the period, making a total of ten.

Reporting ten lists for each of the 14 variations that employ these linkages seems likely only to confuse. In all sections such as the one below, therefore, the emphasis is upon:

- -- The number and identity of the Pairs/Clusters/Midsites announced in 1980 and 1983, respectively.
- -- The number and identity of those Pairs/Clusters/Midsites from this list that are activated in at least one year during the periods 1980-83 and 1983-85, respectively.
- -- The number and identity of those Pairs/Clusters/Midsites that are announced but never activated during each period.

All figures dealing with the effects of these linkages are, of course, drawn only from those that are activated.

Charts 26 and 27 list the Pairs/Clusters/Midsites formed by the model under the restrictions of Plans C1 and C2, broken down by those announced, those activated, and, of the latter, how long each set lasts in the face of demographic pressures. In brief the Chart shows that:

-- Plan C1 would result in an announced total of 15 Pairs, three Clusters, and six Midsites (of which all except two Pairs and two Midsites would be activated) in 1980-83 and 16 Pairs, no Clusters, and 12 Midsites (of which all except three Pairs would be activated) by 1984-85.

-- Under Plan C1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 15 Pairs, three Clusters, and six Midsites would be formed in 1980, of which two Pairs, no Clusters, and one Midsite would last through 1985. Fourteen new Pairs, no new Clusters, and 11 new Midsites would be formed in 1983.

-- Plan C2 would result in an announced total of 34 Pairs, four Clusters, and five Midsites (of which all except four Pairs would be activated) in 1980-83, and 28 Pairs, no Clusters and no Midsites (of which 21 Pairs would be activated) by 1984-85.

-- Under Plan C2, no current Pairs, Clusters, or Midsites would endure in future years. All 34 Pairs, four Clusters, and five Midsites would be announced in 1980, of which none would last through 1985. Twenty-eight new Pairs, no Clusters, and no Midsites would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by Plan C1, and none of them would be maintained by Plan C2. Of the new matches made in 1980, only two Pairs and one Midsite would emerge from the 1983 reassignment under Plan C1, and none would survive under Plan C2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, very few -- or none -- of the resulting matches are any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of Desegregated schools, nearly every eligible school must be reassigned to a different grouping. Also, since both Plans desegregate fewer and fewer schools in each year after the second (1981-82), the new matches become less and less efficacious over time.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) is relatively modest in all cases except in Plan C2 in the 1983-85 period. In Plan C1, it invalidates only four groupings (or 17% of all groupings) in 1980-83 and three other ones (11%) in 1983-85. Under Plan C2, these factors invalidate four (or 9%) or 33 groupings in 1980-83, but seven of 28 (or 25%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan C1 would have seven groupings (four Pairs, one Cluster, and two Midsites -- or 28% of the activated groups) in this partially invalidated category during 1980-83, and four groupings (three Pairs and one Midsite -- or 16% of the activated groups) in 1983-85. Plan C2 would have nine groupings (six Pairs, two Clusters, and one Midsite -- or 31% of all activated groups) partially invalidated in 1980-83, and three (all Pairs -- 14% of all activated groups) in that status during 1983-85.

Both Plans would encounter less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 7-9 (23-33%) of all active groupings created under either Plan would not be transporting pupils in at least one year. In the second interval only 3-4 (or 14-15%) of all activated groups would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would decline as the number of activated groups declined.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be a complete change in the groupings of schools that are employed this year, and, in the case of Plan C1, a major decrease in the number of each kind of grouping now in actual use. Under Plan C2 the current groupings would change completely, but the total number of announced Pairs/Clusters/Midsites in 1980-81 would remain in the range actually in effect in 1979-80. As noted earlier, the result of a change to Plan C1 (together with related changes on the voluntary side of that Plan) would be a reduction in the number of schools now actually Desegregated, but an increase in the number of pupils attending such schools. Under Plan C2, there would be a small increase in the number of Desegregated schools and a more substantial enlargement in the number of pupils attending them.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/Midsiting of the 15-minute travel time allowance that divides them. The extra time results in more than twice as many announced and activated groupings in Plan C2 as in Plan C1. And they are almost entirely new groupings -- only three of the Pairs announced in 1980 and four of the ones announced in 1983 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, the transfers of pupils involved in mandatory transport would be almost entirely different, depending on which Plan were chosen.

They would also emphasize different levels, although both Plans draw very predominantly from elementary schools and both move toward a bit more stress on junior high schools in the later years of the projection period. Plan C1 would include no junior high schools in any of the groupings formed under it in 1980, and only two junior high school Pairs and one Midsite in 1983. Plan C2 would form one junior high school Pair in 1980 and four in 1983, but none of the four would be activated.

Finally, the Chart shows the greater utility of the Midsite device under the pressure of the travel time constraint. Clustering becomes inefficient within the 30-minute limit as the number of Whites in the pupil population falls because of demographic trends, but the use of Midsites becomes substantially more effective within the bounds imposed on Plan C1. Under C2 conditions, on the other hand, both Clusters and Midsites disappear in the last two years of the period, and the number of Pairs falls substantially (34-28) as well. It is for this reason that the two Plans converge in their desegregation effects over the latter years of the period; Plan C2 is able to use most of the operating room provided it in the early years, and does not become more efficient later, while Plan C1, by moving to Midsiting, can largely maintain its desegregation momentum. Still, of course, Plan C2 remains the more effective desegregator of both schools and pupils in all years of the projection. In the last year of the period, however, this difference is quite small.

Magnet Schools

The interplay of pupil demand for Magnet admission with demographic forces results in different Magnet lists for each year of the projection period. This makes it impossible to present them in chart form. The Magnet projections basically show the following:

-- Plan C1 would result in a total of 58 Magnets in 1980-81, of which 15 would be new and 43 would be from the current list. Of the current ones that would be preserved, 42 (or 72% of all Magnets) would be Segregated by the definition used herein. Plan C2 would generate 60 total Magnets in that year, 17 new and 43 old, of which the same 42 (or 70% of all Magnets would be Segregated.

-- In 1984-85, Plan C1 would yield a total of 55 Magnets, of which 43 (or 78%) would be Segregated. The corresponding numbers for Plan C2 would be 56 and 43 (or 77% of all Magnets).

-- Under Plan C1 43 current Magnets would operate through the entire projection period, while 12 of those first opened in 1980-81 would survive the full five years. Under Plan C2 43 current Magnets would also last the full period, and 12 of the 1980-81 crop of 17 would last the full five years.

-- The number of pupils attending Magnets in 1980-81 under Plan C1 would be 11,000 (or 2% of all pupils). These pupils would be 25% Black, 46% Hispanic, 7% Other Minorities, and 22% White. Under Plan C2, the total number of pupils would be virtually identical in both absolute number and share, and the racial/ethnic breakdown would be the same as well.

-- By 1984-85 the number of pupils attending Magnets under Plan C1 would fall to 10,000 (or 2% of all pupils). They would then be 20% Black, 53 % Hispanic, 8% Other Minorities, and 18% White. Under Plan C2 the total number of pupils in 1984-85 and their racial/ethnic distribution would be virtually identical.

Overall, the trend under either Plan would be gently downward in the absolute number of Magnet participants, while the percentage share of all pupils who attend Magnets would remain stable. The number of Magnets would also decline slowly over the period. There would be some turnover of Magnets under either Plan, as demographic conditions eroded the number of Whites and the desegregation standard precluded the opening of new Magnets. Still, because of the more lenient rule with respect to closing of existing Magnets, the period would end with nearly four of every five Magnets Segregated under either Plan.

The immediate effect of the installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of Magnets (from 55 to 58-60), but a modest decline in the number of pupils enrolled in them (from 12,000 to 11,000). Of the Magnets in existence in 1979-80, 43 would survive the full five years, constituting the bulk of the Magnet structure throughout the period. Among racial/ethnic groups, Combined Minority participation would rise from 56% of all Magnet attendees in 1979-80 to 78% in 1980-81, while White participants fell from 44% to 22%.

The difference between the two plans is virtually imperceptible with respect to Magnets. The aspect that distinguishes the two would have no discernible effects at any time during the period.

Pupils Transported

Chart 28 shows the total number of children who would be transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

- From 34,000 (or 6% of all pupils) to 40,000 (or 7%) pupils would be transported in 1980-81. The corresponding range for 1984-85 would be 31-32,000 (or 5-6%).
- From 2,000 (or 6%) to 8,000 (or 20%) of all these pupils would be mandatorily

transported in 1980-81. The corresponding range would in 1984-85 would be 3-5,000 (or 10-14%).

-- Most pupils transported in all years would be elementary school pupils, and they would account for virtually all of the pupils mandatorily transported in 1980-81. By 1984-85 their proportion would fall to 93% in Plan C1, but they would still contain virtually the full complement in Plan C2.

-- The burden of transportation to non-neighborhood schools would fall predominantly upon Minority pupils in both Plans in all years. In 1980-81, from 85-90% of all pupils transported would be Minority, with Blacks making up 41-46% Hispanics 41%, and Other Minorities 3%. In 1984-85 the travel share of all Minorities would fall slightly to 88-89%, and the individual share of Blacks would be 39-41%, of Hispanics 45-46%, and of Other Minorities 3%.

-- Of all Minority pupils in the system, from 7 to 8% would be transported in 1980-81, shifting to 6-7% in 1984-85. Blacks would move from a 12-13% range in 1980-81 to a 11-14% range in 1984-85. The corresponding numbers for Hispanics would be 6-7% and 5%; and for Other Minorities 2-4% and 2%. The share of White pupils transported would start the period in the 2-4% range, and attain a 4% level under either Plan by 1984-85.

Overall, the simulation indicates that the number of pupils transported would fall during the projection period to approximately the same (31-32,000 pupil) level in 1984-85.

However, this represents a 6% fall from the starting year for Plan C1, but a 23% drop for Plan C2. The great majority of transported pupils would be Minority in all years; the Minority share would show a convergence of the two Plans toward the 88-89% range in 1984-85. Nevertheless, in that year only one Minority pupil in 14 would be transported. This overall average would translate into about one chance in eight that a Black pupil would be transported, about one in 16 that a Hispanic would be, and one in 50 that a member of another Minority would participate. The odds that a pupil of any race/ethnicity would be transported would fall somewhat over the period, ending in the vicinity of one in 20.

The immediate effect of adopting either Plan C1 or Plan C2 in 1980-81, as compared with actual conditions in 1979-80, would be a modest decrease in the number of pupils transported, but a major change in their racial/ethnic balance and in the number who are mandatorily transported. The number transported would fall from 42,000 (or 8% of all pupils) in 1979-80 to 34-40,000 (or 6-7%) in 1980-81. But the number of White pupils transported would drop from 8,000 (or 6% of all White pupils) to 4-6,000 (or 2-4%). The share of Combined Minorities would be approximately stable at 31-33,000 (or 8% of all Minority pupils). The number of mandatorily transported pupils of all races/ethnicities would fall from 16,000 to 2-8,000, a drop of 50-87%. Thus, the reduction that would be made in the 1979-80 level of pupils transported under either Plan would consist mostly of Whites, many of whom are now mandatorily transported.

The results of the two Plans converge -- and even cross -- in later years, but exhibit important differences in the first two years of the projection period. Plan C2, with the 45-minute time limit permitting a significantly larger number of mandatory linkages between schools, would result in 6,000 more pupils transported than would Plan C1 in 1980-81, and 5,000 of these would be mandatorily transported. As the period moves along, however, the shift of Plan C1 to Midsites as a primary device keeps its transported pupil numbers relatively stable, while those of Plan C2 decline sharply. By 1984-85, Plan C1 would actually result in transportation of about 1,000 more pupils than Plan C2, and Plan C1 would be moving about 2,000 more mandatorily. The 15-minute lowering of the travel time ceiling would not reduce the number of pupils transported (or even those mandatorily transported) at the end of the five years; it would actually increase that number.

Charts 30 and 31 break down the total pupils transported into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

-- Plan C1 would result in transportation of 11,000 pupils (or 2% of all pupils) to Magnets in 1980-81, falling to 10,000 (still 2%) in 1984-85. Under Plan C2 the 1980-81 figure would be 11,000 (or 2% of all pupils) and the 1984-85 estimate 10,000 (still 2%).

-- Under Plan C1 the 1980-81 total of pupils transported to Magnets would include 3,000 (or 25%) Blacks, 5,000 (or 46%) Hispanics, 1,000 (or 7%) Other Minorities, and 2,000 (or 20%) Whites. Plan C2 would result in 3,000 (or 25%) Black pupils being transported, 5,000 (or 46%) Hispanics, 1,000 (or 7%) Other Minorities, and 2,500 (or 23%) Whites.

-- Under Plan C1 the 1984-85 total of pupils transported to Magnets would include 2,000 (or 20%) Blacks, 5,000 (or 53%) Hispanics, 1,000 (or 8%) Other Minorities, and 2,000 (or 18%) Whites. Plan C2 would include 2,000 (or 20%) Blacks, 5,000 (or 53%) Hispanics, 1,000 (or 8%) Other Minorities, and 2,000 (or 19%) Whites.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would rise from 28-31% in

1980-81 to 32-33% in 1984-85. The racial/ethnic mix of these pupils would show a rise in the Hispanic component, a fall in the Black and White shares, and relative stability for Other Minorities. By the end of the period, no more than 2% of any group would be transported to Magnets.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of pupils transported to Magnets, despite the simultaneous decrease in the number of Magnet enrollees. Pupils now attending completely Segregated Magnets (which the model assumes will be closed) tend to live closer to those schools than would the pupils attending new, Desegregated Magnets. As a result, total pupils transported to Magnets would rise from the current total of 7,000 to 11,000. The District has no detailed data on the racial/ethnic characteristics of pupils currently transported to Magnets, so comparisons must refer to Whites and Combined Minorities only. At present, Minorities represent 56% of the total, and Whites 44%. Under these Plans the Black-Hispanic share would rise 5% (or about 18,000 pupils).

The effects of the two Plans on Magnet transportation would be virtually identical in all years.

Chart 31 presents the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly white elementary schools on the West Side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites; thus, all pupils projected to be transported in this program are Minority pupils.

In brief, the Chart shows that:

-- Under Plan C1 the number of PWT pupils in 1980-81 would be 21,000 (or 6% of all Minority pupils). The corresponding figure for Plan C2 would also be 21,000 (still 6%).

-- Of the Plan C1 total in 1980-81, 13,000 (or 61%) of PWT pupils would be Black and 8,000 (or 39%) would be Hispanic. The Plan C2 results would be identical.

-- In 1984-85 Plan C1 would place 17,000 pupils (or 4% of all Black and Hispanic pupils) in PWT, while Plan C2 would put 18,000 pupils (still 4%) in the program.

-- Of the Plan C1 total in 1984-85, 10,000 (or 59%) would be Black, and 7,000 (or 41%) would be Hispanic. The corresponding figures for Plan C2 would be the same.

Overall, the number of PWT participants in both Plans is projected to drop 14-19% over the period, or from 6% to 4% of the Black/Hispanic pupil population. The decrease in participation would be in approximately equal proportions from the 1980-81 PWT participant totals, but because the Hispanic population would be growing much faster, the same absolute number of Hispanics becomes a smaller share of total Hispanic enrollment.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a substantial increase in the number of pupils transported under this program. The current total is 16,000 (or 5% of all Minority pupils), while the Plans would produce 21,000 (or 6%). The District has no data with regard to the balance between Blacks and Hispanics in the current program, so no further comparison is possible.

The two Plans would have nearly identical effects upon the PWT program in all years. The difference in travel time ceiling has virtually no discernible effects.

Average One-Way Travel Times

Chart 32 presents the average one-way travel times experienced by all pupils transported under the two Plans. In brief, it shows that:

Plan C1 would result in 1980-81 in average travel times of 36 minutes for elementary school pupils, 48 minutes for junior high pupils, and 48 for high school pupils. The corresponding figures for Plan C2 are 38 minutes, 47 minutes, and 48 minutes.

-- The 1980-81 Plan C1 figures would break down to an average of 48 minutes for all Black pupils, 37 minutes for all Hispanics, 38 minutes for Other Minorities, and 31 minutes for Whites. The Plan C2 figures for the same year would break down to an average of 48 minutes for all Black pupils, 38 minutes for all Hispanics, 40 minutes for Other Minorities, and 37 minutes for Whites.

-- In 1984-85, Plan C1 would generate average travel times of 38 minutes for elementary schools, 50 minutes for junior high pupils, and 50 minutes for senior high pupils. The corresponding figures for Plan C2 are 40 minutes, 51 minutes, and 50 minutes.

-- The 1984-85 Plan C1 figures would break down to an average of 52 minutes for all Black pupils, 40 minutes for all Hispanics, 37 minutes for Other Minorities, and 30 minutes for Whites. The corresponding numbers for Plan C2 would be 52 minutes for Blacks, 41 minutes for Hispanics, 39 minutes for Other Minorities, and 33 minutes for Whites.

Overall, the two Plans would both yield longer average travel times over the period, moving from an all-transported-pupil average of 42 minutes in 1980-81 to 43-44 minutes in 1984-85. The average weight of the travel time burden would remain in the upper segments of the system, the highest average shifting back and forth between junior and senior high school pupils. With respect to ethnic groups, Blacks would consistently have the longest travel times, while White averages would decline.

In reviewing the differential effects of the two Plans, the most arresting result is the fact that the ceiling on travel time of mandatorily-transported pupils has almost no effect in any year. Its sole impact seems to be a lowering of the elementary school average by two minutes throughout the period. This, of course, reflects the fact that these Plans apply mandatory transportation to only grades 4-8, while voluntary transportation includes all grades. The great majority of pupils transported are in voluntary programs. The result is that the voluntary averages control the system-wide averages, and the difference between mandatory ceilings in the two Plans does not significantly change the average travel time spent by any level of pupils or any racial/ethnic group.

Chart 33 projects the Magnet component of average travel times, while Chart 34 does the same for the PWT component. They are self-explanatory.

Summary of Quantifiable Findings

	Plan C1	Plan C2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	-24,000 (or 4%)	-30,000 (or 5%)
Projected Total	555,000	550,000
1984-85		
Expected	597,000	597,000
Flight	-25,000 (or 4%)	-25,000 (or 4%)
Total	572,000	571,000

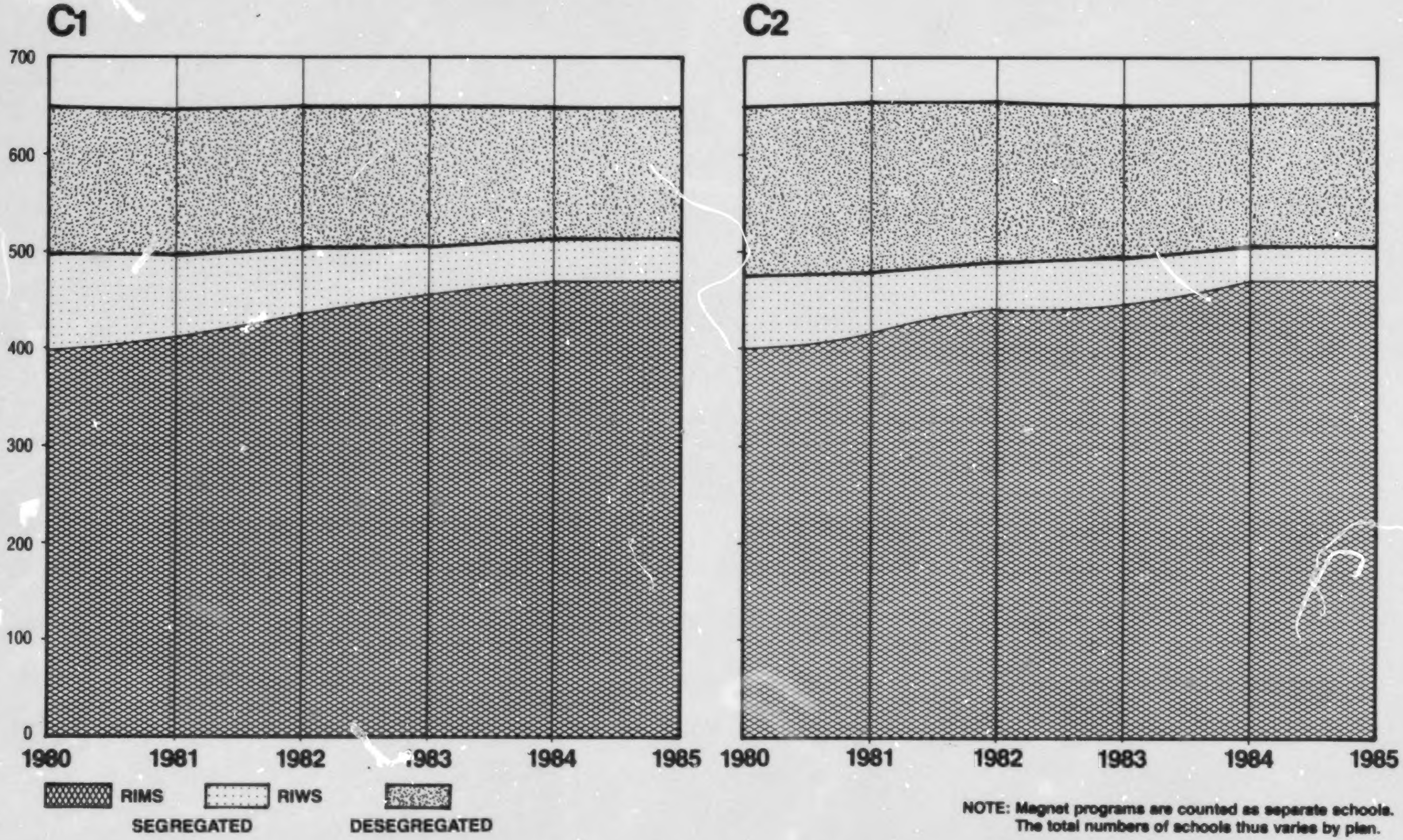
	Plan C1	Plan C2
PWT Pupils		
1980-81		
Black	13,000 (or 61%)	13,000 (or 61%)
Hispanic	8,000 (or 39%)	8,000 (or 39%)
Total	21,000	21,000
1984-85		
Black	10,000 (or 58%)	10,000 (or 58%)
Hispanic	7,000 (or 42%)	7,000 (or 42%)
Total	17,000	17,000
Total Pupils Transported		
1980-81		
Voluntary	32,000 (or 94%)	32,000 (or 90%)
Mandatory	2,000 (or 6%)	8,000 (or 10%)
Total	34,000	40,000
1984-85		
Voluntary	27,000 (or 84%)	28,000 (or 90%)
Mandatory	5,000 (or 16%)	3,000 (or 10%)
Total	32,000	31,000
Average One-Way Travel Times		
1980-81		
Overall	42 minutes	42 minutes
Black	48	48
Hispanic	37	38
Other Minority	38	40
White	31	37
1984-85		
Overall	43	44
Black	52	52
Hispanic	40	41
Other Minority	37	39
White	30	33

CHARTS FOR PART V, VARIATIONS C1 AND C2

CHART 18

VOLUNTARY/MANDATORY PLANS C_1 AND C_2

PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

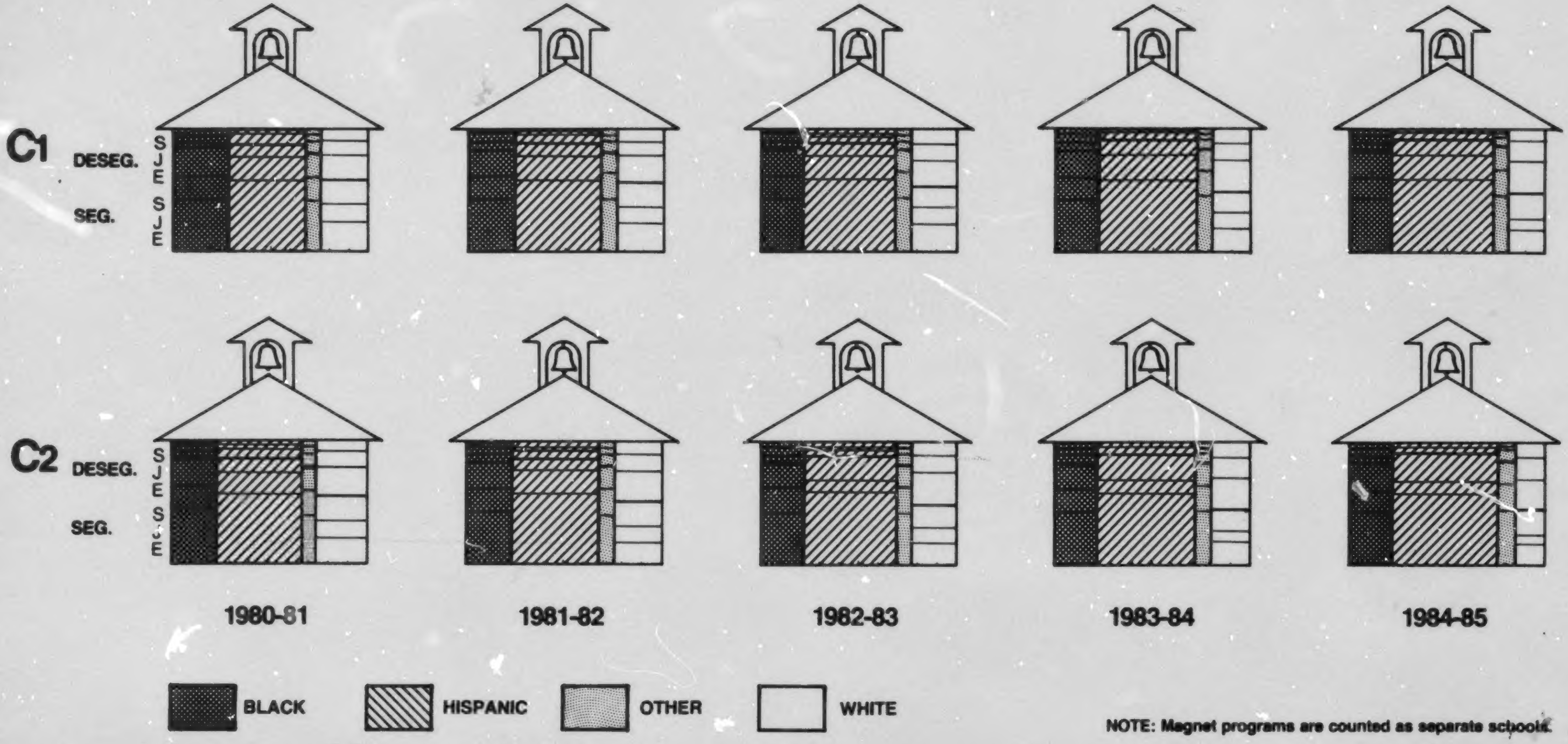


NOTE: Magnet programs are counted as separate schools.
The total numbers of schools thus varies by plan.

CHART 19

VOLUNTARY/MANDATORY PLANS C1 AND C2

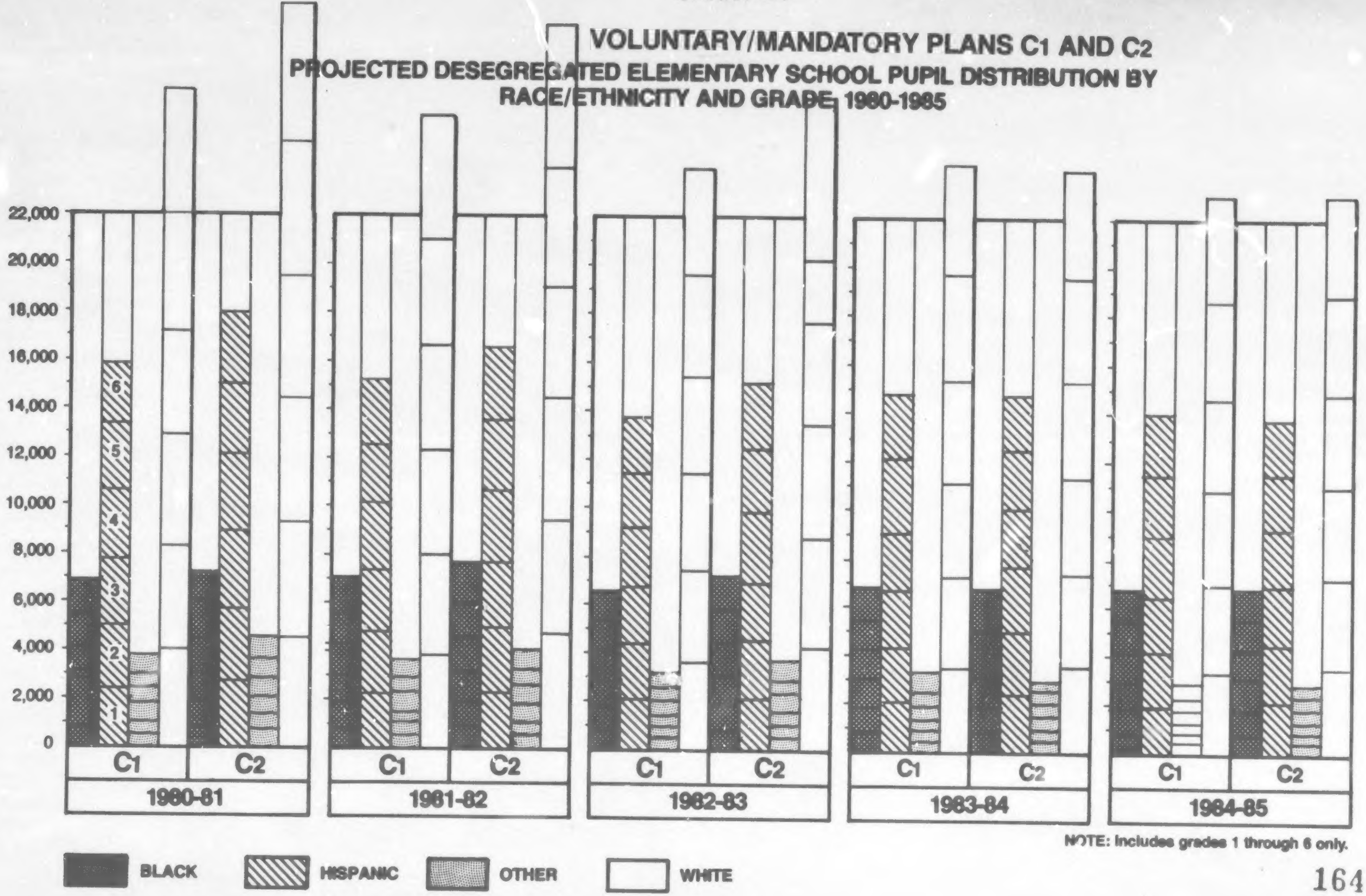
PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



NOTE: Magnet programs are counted as separate schools.

CHART 20

VOLUNTARY/MANDATORY PLANS C_1 AND C_2
PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



NOTE: Includes grades 1 through 6 only.

CHART 20 A

VOLUNTARY/MANDATORY PLANS C_1 AND C_2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

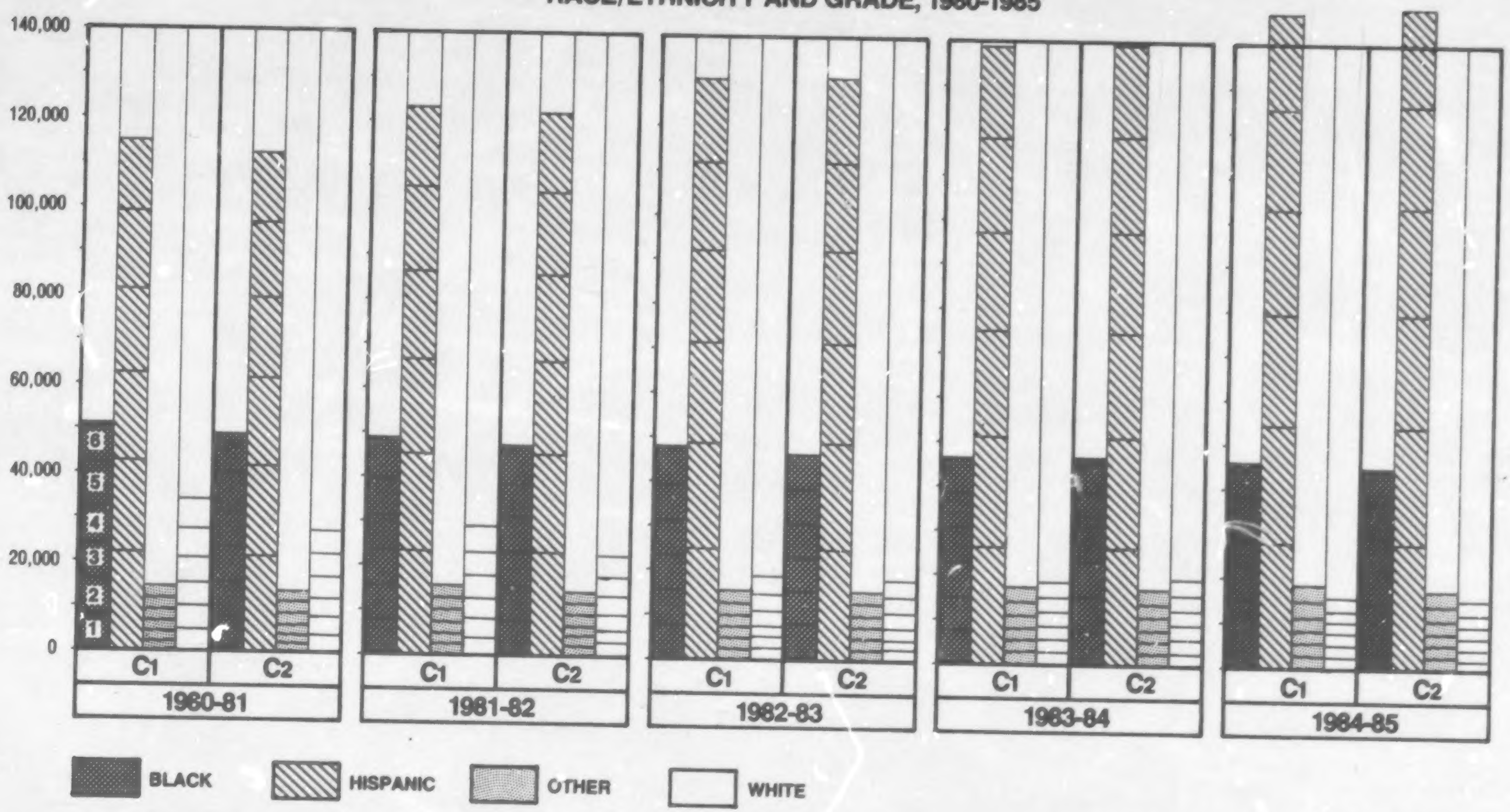


CHART 21

VOLUNTARY/MANDATORY PLANS C_1 AND C_2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

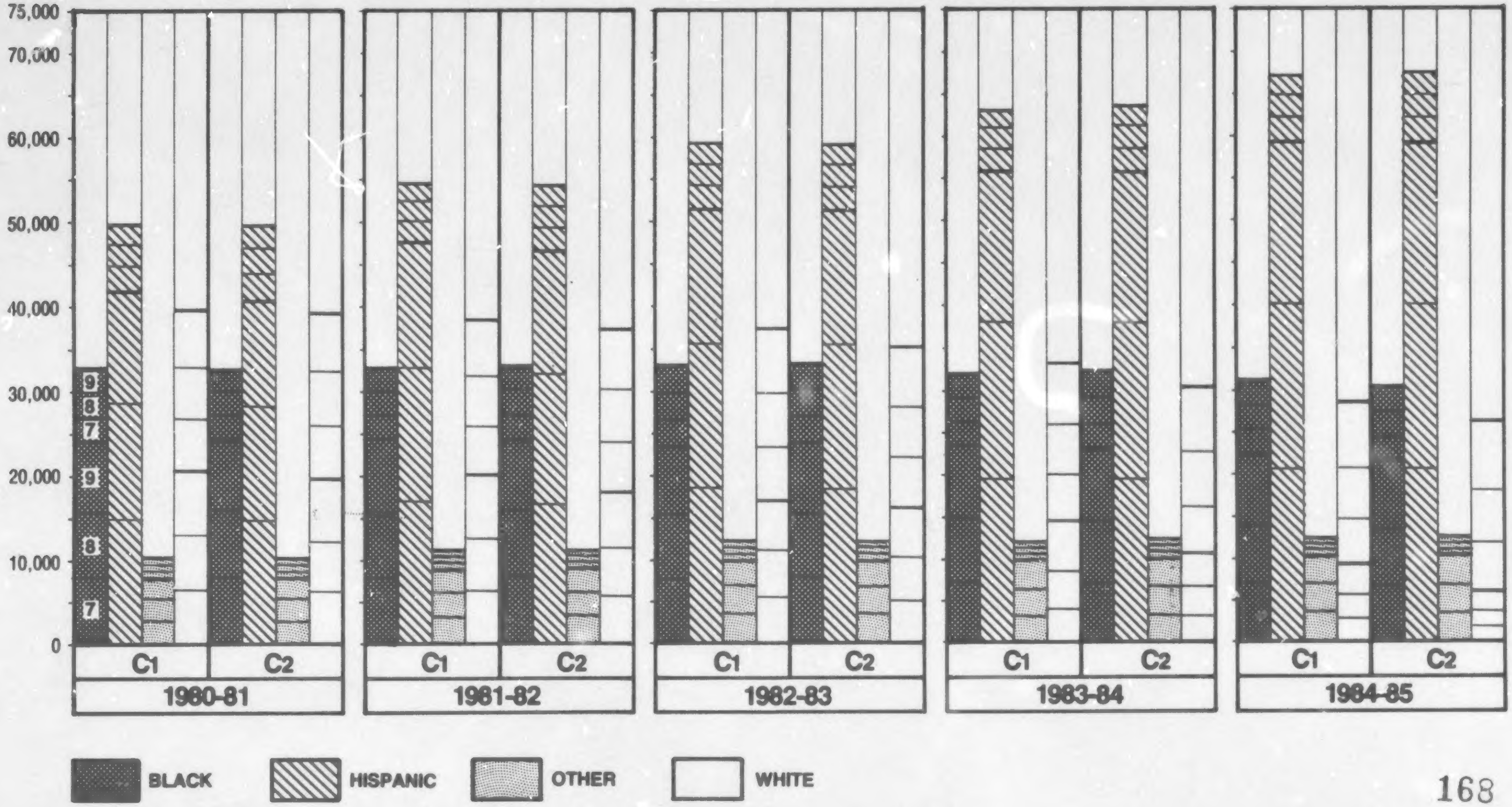


CHART 22

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985

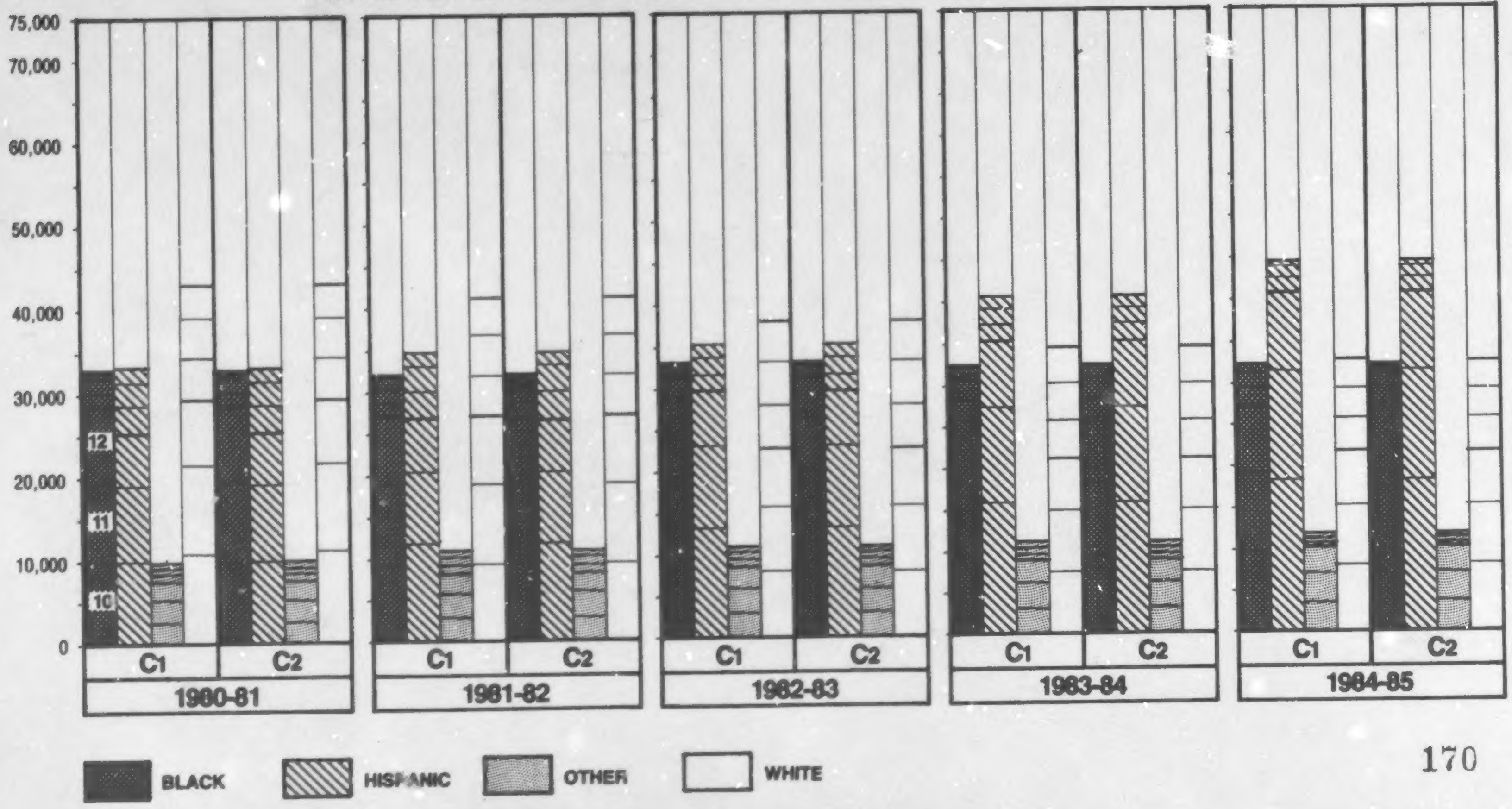


CHART 23

VOLUNTARY/MANDATORY PLANS C_1 AND C_2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	C_1	C_2	C_1	C_2	C_1	C_2	C_1	C_2	C_1	C_2
1980-81	17	2	45	40	111	132	56	64	238	231
1981-82	14	3	35	26	114	134	48	48	255	257
1982-83	8	3	30	17	105	122	45	46	278	279
1983-84	1	2	27	25	107	115	42	44	289	280
1984-85	1	2	18	13	103	108	38	40	305	302

NOTE: Magnet programs are counted as separate schools.

CHART 24

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

SCHOOL YEAR	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
1980-81	0	0	9	8	25	26	16	17	44	43
1981-82	0	0	8	7	23	25	13	13	49	49
1982-83	1	1	5	5	24	24	9	9	54	54
1983-84	1	0	3	2	22	24	12	11	55	56
1984-85	1	0	1	0	21	24	12	12	58	58

NOTE: Magnet programs are counted as separate schools.

CHART 25

VOLUNTARY/MANDATORY PLANS C1 AND C2

PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
1980-81	13	13	16	16	19	19	7	7	43	43
1981-82	14	14	14	14	18	18	7	7	45	45
1982-83	12	12	11	11	21	21	6	6	48	48
1983-84	11	11	10	10	20	20	8	8	49	49
1984-85	12	12	7	7	19	19	9	9	51	51

NOTE: Magnet programs are counted as separate schools.

CHART 26

VOLUNTARY/MANDATORY PLAN C1
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Filmore - Van Gogh
Hart - Nevada

Midsites:

Marquez - Topanga - Westminster

1980-83 ONLY

Pairs:

Andasol - Vena
Apperson - Camellia
*Brentwood Science - Sterry
Castlebay Lane - Victory
*Crescent Heights - Warner
Darby - Vaughn
Dearborn - Noble
El Oro - Osceola
Emelita - Van Nuys
Fenton - Mt. View
Lemay - San Fernando
Sharp - Topeka Drive
Sylvan Park - Wilbur

Clusters:

Pacoima - Calahan - Garden Grove
Telfair - Devonshire - Germain
O'Melveny - Anatola - Superior

Midsites:

Chandler - Bertrand - Santa Monica
Kester - Brockton - Fullbright
*Dixie - Collier - Dayton
Erwin - Grant - Nestle
*Riverside - Ramona - Vanalden

1983-85 ONLY

Pairs:

Balboa - Vaughn
Beachy - Germain
*Camellia - Carpenter
*Carthay Center - Roscomare
Castlebay Lane - Herrick
Collier - Van Nuys
Dearborn - Rinaldi
Encino - Sylvan Park
Lanai - Sterry
Limerick - Noble
Melvin - Napa
Nestle - Ranchito
Topeka Drive - Vena
*Frost JHS - San Fernando JHS

Midsites:

Rhoda - Calabash - Sharp
Valley Alternative - Canterbury - Woodland Hills
Lorne - Capistrano - O'Melveny
Granada - Chatsworth - Sylmar
Valerio - Fernangeles - Vanalden
Devonshire - Highlander - Telfair
Cohasset - Lankershim - Sunny Brae
Reseda - Pacoima - Pomelo
Stagg - San Fernando - Serrania
Kester - Santa Monica - Wilbur
Millikan JHS - De Portola JHS - Virgil JHS

* means grouping would never be activated during projection period.

CHART 27

VOLUNTARY/MANDATORY PLAN C2
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

None

1980-83 ONLY

Pairs:

Allesandro - Nestle
Anatola - Selma
Andasol - Filmore
Apperson - Glenfeliz
*Bertrand - Delevan
Braddock - Wilbur
*Brentwood Science - Broadway
Brockton - Garden Grove
*Saturn - Warner
Calabash - Grant
*Calahan - Vena
Camellia - Van Gogh
Capistrano - Van Nuys
Castlebay Lane- Sylvan Park
Chatsworth - O'Melveny
Collier - Dayton
Crescent Heights - Vanalden
Darby - Vaughn
Dearborn - Noble
El Oro - Osceola
Emelita - Van Ness
Fenton - Germain
Fullbright - Hart
Lemay - Short
Limerick - San Fernando
Montague - Nevada
Morningside - Superior
Mt. View - San Pascual
Ramona - Serrania
Santa Monica - Sunny Brae
Sterry - Topanga
Topeka Drive - Victory
Vine - Woodlake
Columbus JHS - San Fernando JHS

Clusters:

Haddon - Hamlin - Winnetka
Sharp - Haynes - Oso
Pacoima - Calvert - Highlander
Telfair - Devonshire - Woodland Hills

Midsites:

Stagg - Justice - Shenandoah
Valley Alternative - Lockhurst - Wilton Place
Kester - Platt Ranch - 10th Street
Bassett - Pomelo - 24th Street
Chandler - Union - Welby

1983-85 ONLY

Pairs:

Balboa - Beachy
Brockton - Topanga
Calabash - Lankershim
Canterbury - Chatsworth
*Carpenter - Oxnard
*Carthay Center - Roscomare
Castlebay Lane - Herrick
Collier - Van Nuys
Dearborn - El Dorado
*Encino - Noble
Fernangeles - Sunny Brae
Filmore - Woodland Hills
Germain - Harding
Gridley - Van Gogh
Hart - Nevada
Lanai - Sylvan Park
Limerick - Napa
Melvin - Vaughn
Osceola - Vanalden
Pomelo - Ranchito
Rinaldi - Welby
Selma - Serrania
Sterry - Wilbur
Topeka Drive - Vena
*De Portola JHS - Webster JHS
*Frost JHS - San Fernando JHS
*Fulton JHS - Lawrence JHS
*Maclay JHS - Parkman JHS

* means grouping would never be activated during projection period.

CHART 28

VOLUNTARY/MANDATORY PLANS C1 AND C2

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

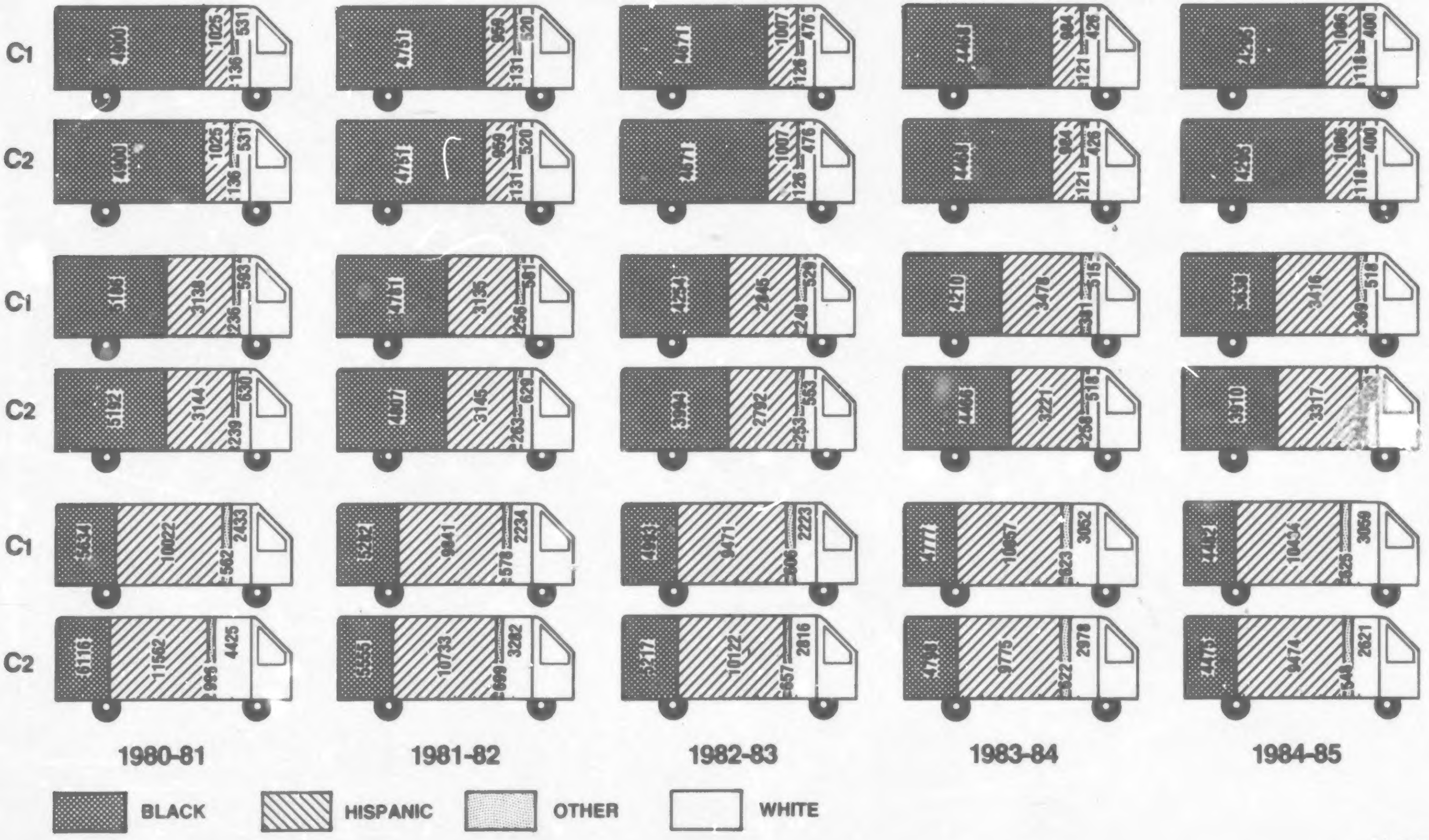


CHART 29

VOLUNTARY/MANDATORY PLANS C1 AND C2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

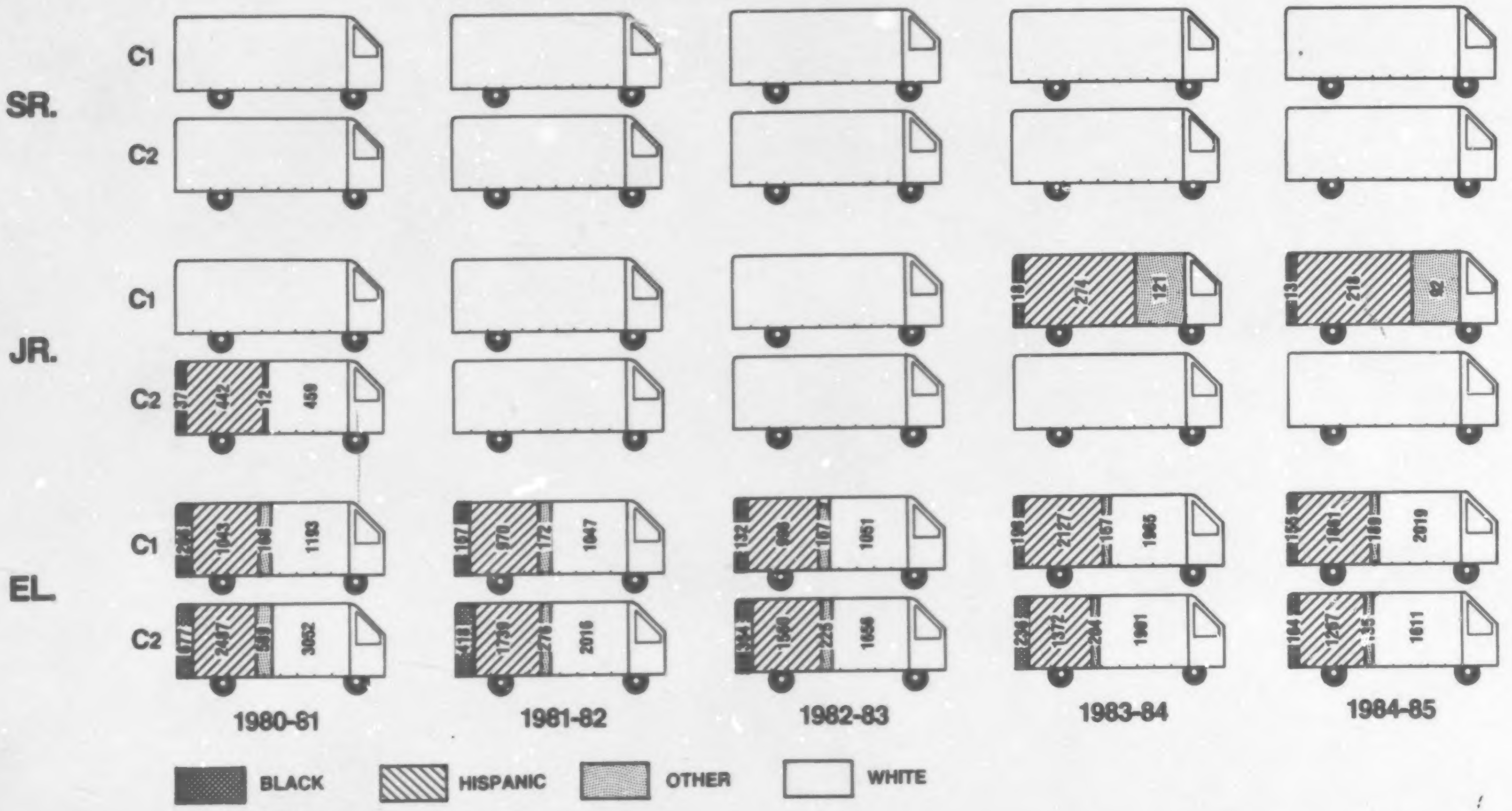


CHART 30

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

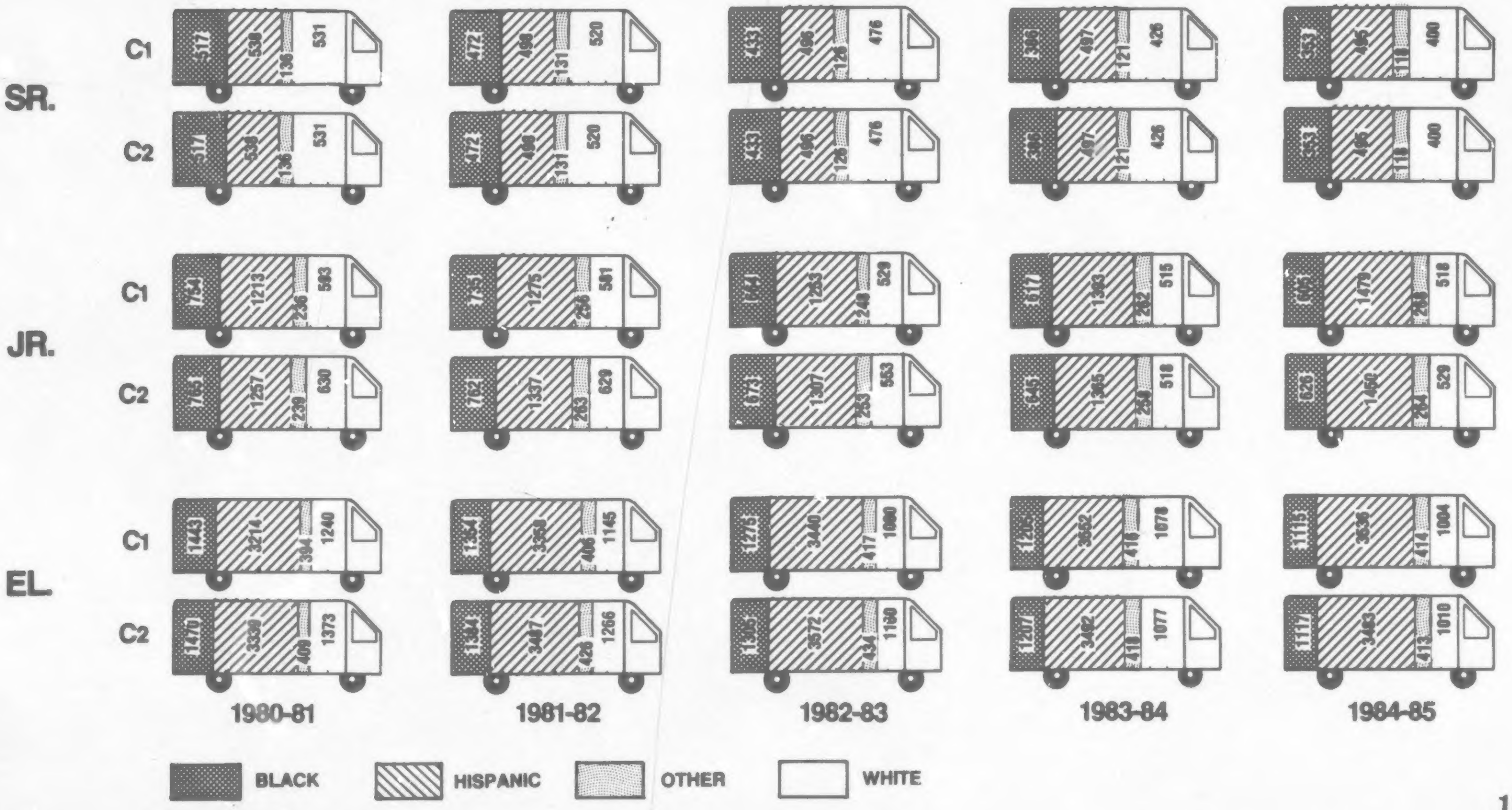


CHART 31

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED UNDER PWT PROGRAM, BY RACE/ETHNICITY AND LEVEL, 1980-1985

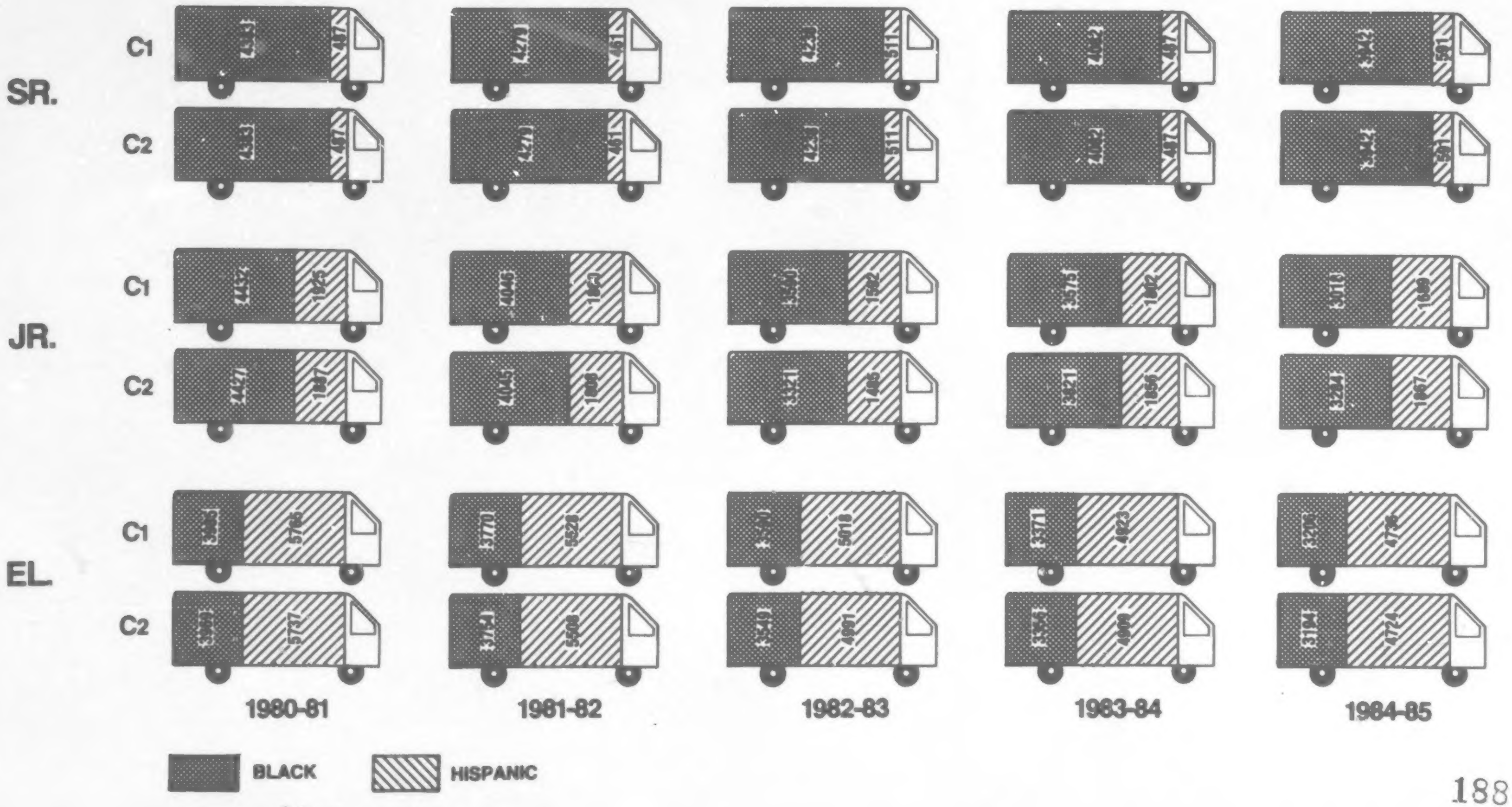
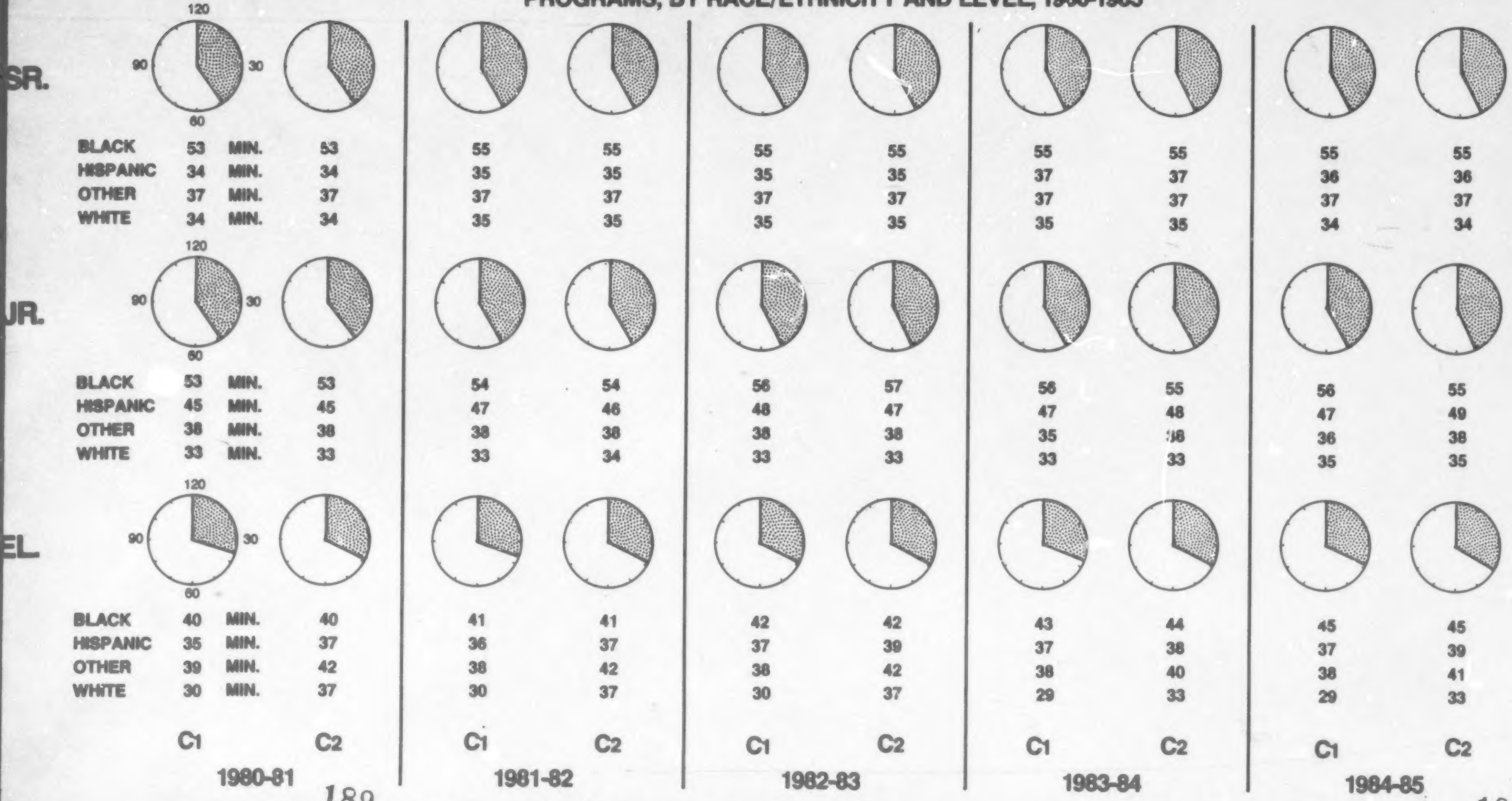


CHART 32

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



SR.	1980-81 C1	1980-81 C2	1981-82 C1	1981-82 C2	1982-83 C1	1982-83 C2	1983-84 C1	1983-84 C2	1984-85 C1	1984-85 C2
BLACK	53 MIN.	53	55	55	55	55	55	55	55	55
HISPANIC	34 MIN.	34	35	35	35	35	37	37	36	36
OTHER	37 MIN.	37	37	37	37	37	37	37	37	37
WHITE	34 MIN.	34	35	35	35	35	35	35	34	34

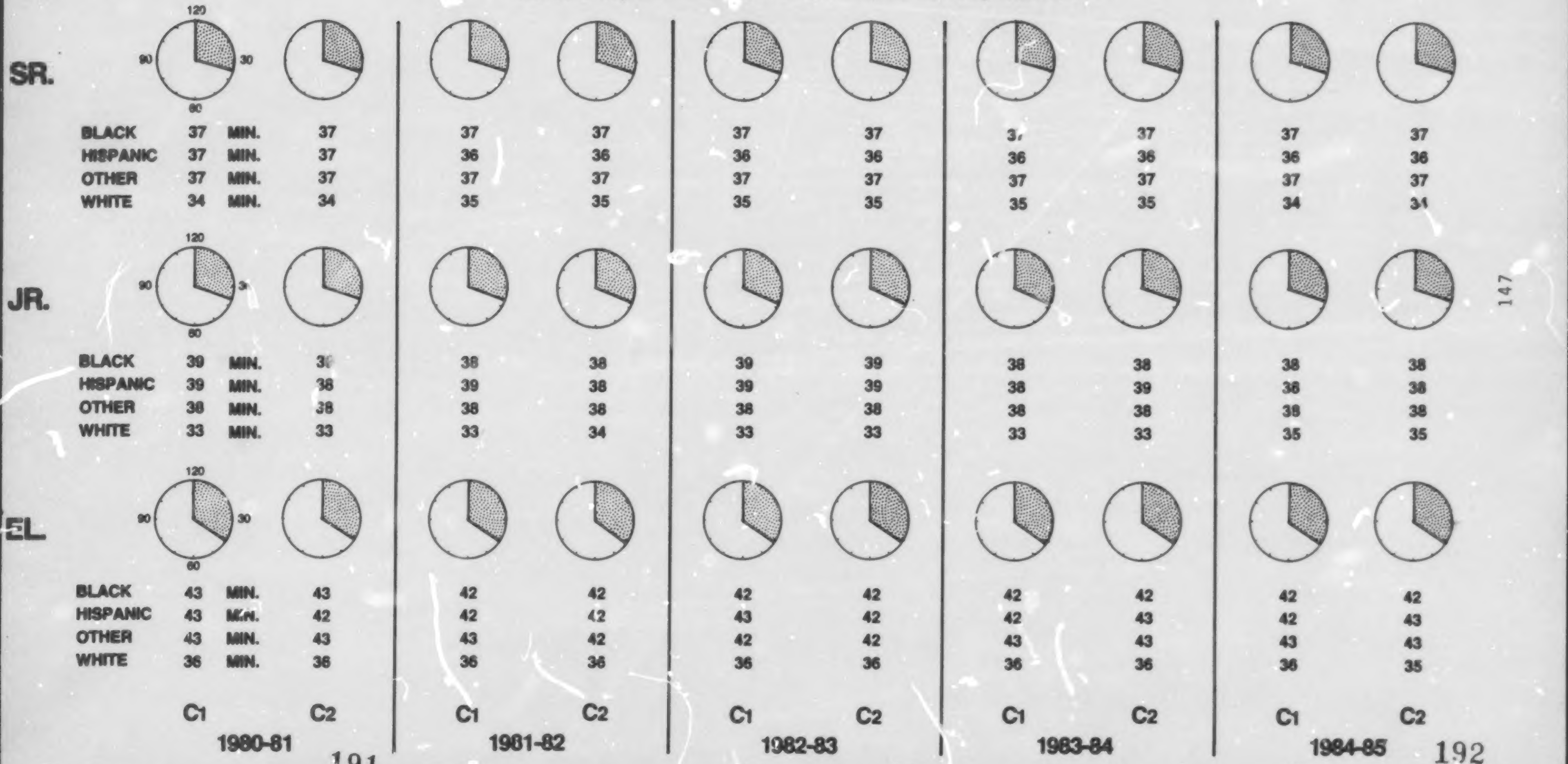
JR.	1980-81 C1	1980-81 C2	1981-82 C1	1981-82 C2	1982-83 C1	1982-83 C2	1983-84 C1	1983-84 C2	1984-85 C1	1984-85 C2
BLACK	53 MIN.	53	54	54	56	57	56	55	56	55
HISPANIC	45 MIN.	45	47	46	48	47	47	48	47	49
OTHER	38 MIN.	38	38	38	38	38	35	36	36	38
WHITE	33 MIN.	33	33	34	33	33	33	33	35	35

EL.	1980-81 C1	1980-81 C2	1981-82 C1	1981-82 C2	1982-83 C1	1982-83 C2	1983-84 C1	1983-84 C2	1984-85 C1	1984-85 C2
BLACK	40 MIN.	40	41	41	42	42	43	44	45	45
HISPANIC	35 MIN.	37	36	37	37	39	37	38	37	39
OTHER	39 MIN.	42	38	42	38	42	38	40	38	41
WHITE	30 MIN.	37	30	37	30	37	29	33	29	33

CHART 33

VOLUNTARY/MANDATORY PLANS C1 AND C2

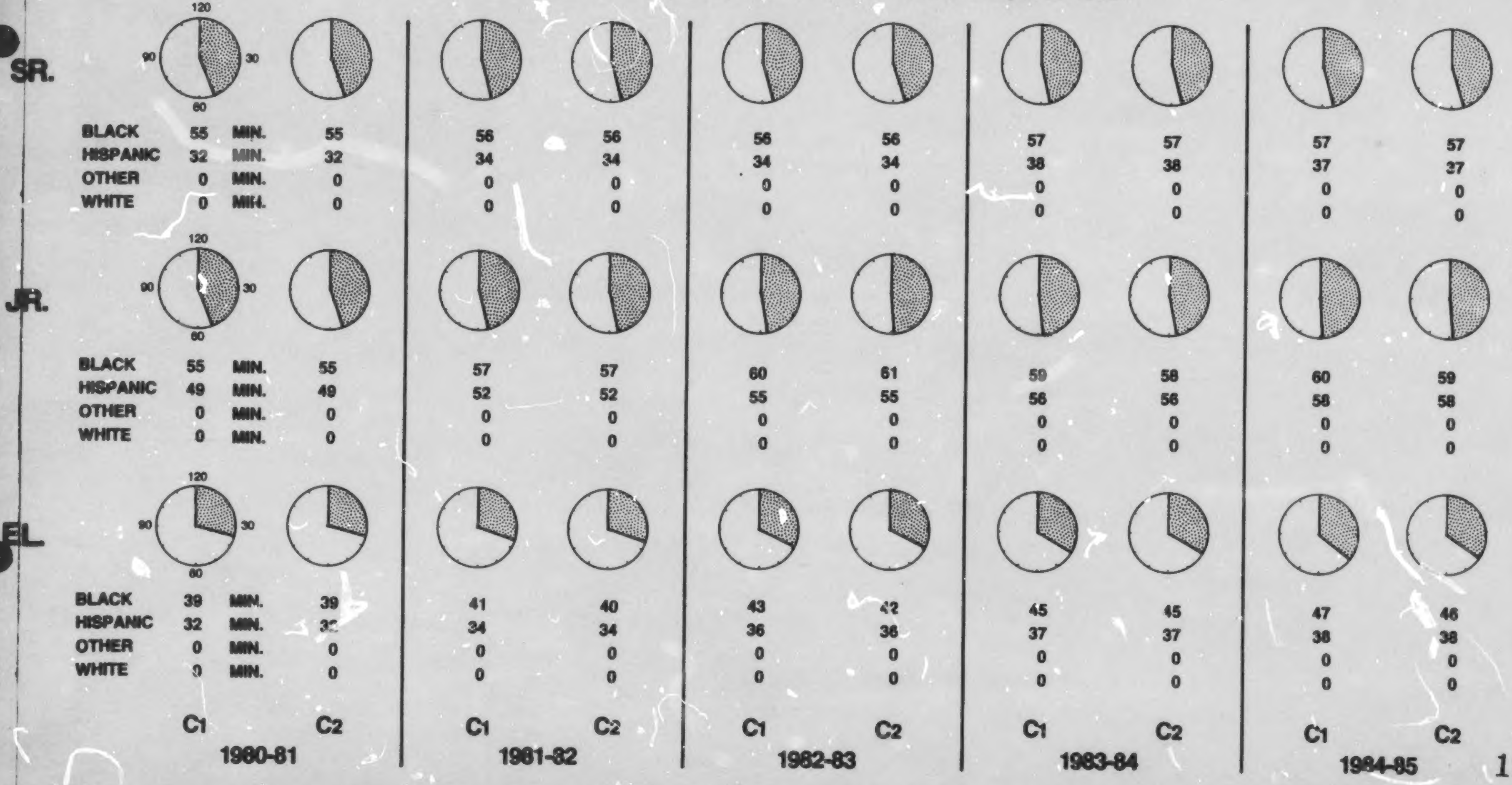
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 C1		1980-81 C2	1981-82 C1	1981-82 C2	1982-83 C1	1982-83 C2	1983-84 C1	1983-84 C2	1984-85 C1	1984-85 C2
SR.	BLACK	37	MIN.	37	37	37	37	37	37	37	37	37
	HISPANIC	37	MIN.	37	36	36	36	36	36	36	36	36
	OTHER	37	MIN.	37	37	37	37	37	37	37	37	37
	WHITE	34	MIN.	34	35	35	35	35	35	35	34	34
JR.	BLACK	39	MIN.	38	38	38	39	39	38	38	38	38
	HISPANIC	39	MIN.	38	39	38	39	39	38	39	36	38
	OTHER	38	MIN.	38	38	38	38	38	38	38	38	38
	WHITE	33	MIN.	33	33	34	33	33	33	33	35	35
EL.	BLACK	43	MIN.	43	42	42	42	42	42	42	42	42
	HISPANIC	43	MIN.	42	42	42	43	42	42	43	42	43
	OTHER	43	MIN.	43	43	42	42	42	43	43	43	43
	WHITE	36	MIN.	36	36	36	36	36	36	36	36	35

CHART 34

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED UNDER PWT PROGRAM BY RACE/ETHNICITY AND LEVEL, 1980-1985



SR.

	1980-81		1981-82		1982-83		1983-84		1984-85	
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
BLACK	55 MIN.	55	56	56	56	56	57	57	57	57
HISPANIC	32 MIN.	32	34	34	34	34	38	38	37	37
OTHER	0 MIN.	0	0	0	0	0	0	0	0	0
WHITE	0 MIN.	0	0	0	0	0	0	0	0	0

JR.

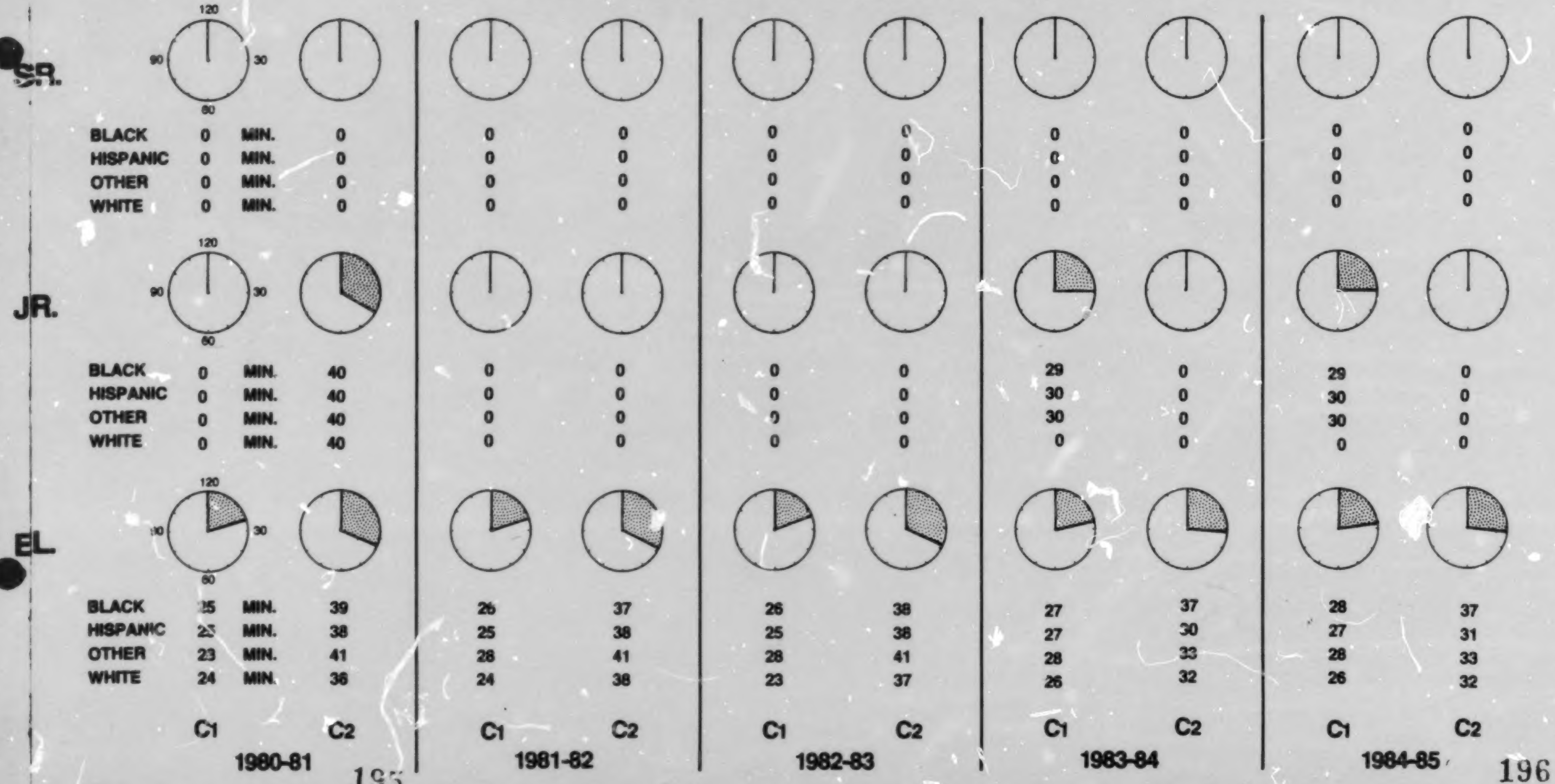
	1980-81		1981-82		1982-83		1983-84		1984-85	
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
BLACK	55 MIN.	55	57	57	60	61	59	58	60	59
HISPANIC	49 MIN.	49	52	52	55	55	56	56	58	58
OTHER	0 MIN.	0	0	0	0	0	0	0	0	0
WHITE	0 MIN.	0	0	0	0	0	0	0	0	0

EL.

	1980-81		1981-82		1982-83		1983-84		1984-85	
	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
BLACK	39 MIN.	39	41	40	43	42	45	45	47	46
HISPANIC	32 MIN.	32	34	34	36	36	37	37	38	38
OTHER	0 MIN.	0	0	0	0	0	0	0	0	0
WHITE	0 MIN.	0	0	0	0	0	0	0	0	0

CHART 35

VOLUNTARY/MANDATORY PLANS C1 AND C2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 C1		1980-81 C2	1981-82 C1	1981-82 C2	1982-83 C1	1982-83 C2	1983-84 C1	1983-84 C2	1984-85 C1	1984-85 C2
SR.	BLACK	0	MIN.	0	0	0	0	0	0	0	0	0
	HISPANIC	0	MIN.	0	0	0	0	0	0	0	0	0
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
JR.	BLACK	0	MIN.	40	0	0	0	0	29	0	29	0
	HISPANIC	0	MIN.	40	0	0	0	0	30	0	30	0
	OTHER	0	MIN.	40	0	0	0	0	30	0	30	0
	WHITE	0	MIN.	40	0	0	0	0	0	0	0	0
EL.	BLACK	25	MIN.	39	26	37	26	38	27	37	28	37
	HISPANIC	25	MIN.	38	25	38	25	38	27	30	27	31
	OTHER	23	MIN.	41	28	41	28	41	28	33	28	33
	WHITE	24	MIN.	36	24	38	23	37	26	32	26	32

Variations D1 and D2

Basic Ground Rules

Variations D1 and D2 gradually spread the desegregation plan from the currently eligible grades (4-8) through the entire range of grades other than kindergarten. Because a desire was expressed to see the effect of grade-by-grade expansion, rather than immediate inclusion of all remaining grades, the model adds grades in the following pattern, beginning with the 4-8 base and cumulating all additions:

- Add grades three and nine in 1980-81.
- Add grades two and ten in 1981-82.
- Add grades one and 11 in 1982-83.
- Add grade 12 in 1983-84.
- Include grades 1-12 in 1984-85.

There is one other difference between Plans D1 and D2 and those labelled C1 and C2. In D1 and D2, schools are not exempted from mandatory linkages unless the standard definition of "Desegregated" (i.e., at least 40% each of Whites and Combined Minorities) is met. It will be recalled that in C1 and C2 this exemption occurred when the share of Whites and Combined Minorities reached at least 30%; those are the only Plans that employ this 30% standard -- which is the criterion now used to determine school exemptions in the District's current plan. Plans D1 and D2, and all subsequent Plans in this simulation series, employ the 40% standard which defines a Desegregated school.

The two differences just discussed are the only differences between Plans D1 and D2 and those labelled C1 and C2. Under D1 and D2, pupils who wish to volunteer for Magnet or PWT programs are still allowed to do so before mandatory assignments are made, and the resulting racial/ethnic effects on the receiving schools are still taken into account in determining the initial balance of the school and, thereby, in deciding whether it is eligible for mandatory linkage.

Difference Between the Variations

Plans D1 and D2 differ from each other in only one respect:

- -- Plan D1 imposes a maximum travel time limitation for any manditorily transported pupil of 30 minutes.
- -- Plan D2 imposes a maximum travel time limitation for any mandatorily transported pupil of 45 minutes.

Number of Segregated/Desegregated Schools

Chart 36 shows the numbers of schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. Since Magnet programs are counted (as they are in current District practice) as separate schools, the total number of schools rises and falls as Magnets are formed and closed.

In brief, as the Chart shows:

- -- In Plan D1 the number of Desegregated schools starts at 185 (or 28%) in 1980-81 and falls to 157 (or 24%) by 1984-85. The corresponding numbers for Plan D2 are 226 (or 34%) and 160 (or 24%).
- -- In Plan D1 the number of Segregated schools starts at 475 (or 72%) in 1980-81 and rises slightly to 499 (or 76%) by 1984-85. The corresponding numbers for Plan D2 are 435 (or 66%) and 497 (or 76%).
- -- In Plan D1, within the "Segregated" category, the number of RIWS declines from 75 to 26 by 1985, while RIMS increase from 400 to 473. The corresponding figures for Plan D2 are 39 to 25 in the case of RIWS, and 396 to 472 in the case of RIMS.

Overall, the broadest finding of the simulation is that given the parameters stated herein, neither Plan will desegregate more than 34% of the schools in 1980-81, nor retain more then 24% of them in that category in 1984-85. In both instances the prospect is for a steady decline in the proportion of Desegregated schools as the projection period proceeds.

The simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be an increase, ranging from modest to substantial, in the number of Desegregated schools. For Plan D1 this reduction would raise the total number of currently Desegregated schools by 12, raising the actual number by 7%. In the case of Plan D2, 53 Desegregated schools (or 31% more than the current Desegregated group) would be added to the actual total. Nevertheless, both Plans would accomplish substantial additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan D1 would desegregate 115 more schools in 1980-81 and 94 more in 1984-85 than would be demographically expected in the absence of a plan. Plan D2 would desegregate 156 more schools in 1980-81 and 97 more in 1984-85 than would demographic forces operating without intervention by a plan.

However, the difference between the two Plans -- the 15-minute additional travel time allowance in Plan D2 -- has important effects. Virtually the entire school desegregating advantage conferred by the extra 15 minutes is used up after the first three years of the projection period. Having converged rapidly during those years, the number of schools desegregated by the two approaches becomes nearly identical. Thus, the difference in favor of Plan D2 is 41 Desegregated schools in 1980-81, 42 schools in 1981-82, 25 schools in 1982-83, four schools in 1983-84, and three schools in 1984-85. The demographic erosion of the White pupil population negates the travel time difference after three years and the Plans become almost interchangeable. The same pattern is described for RIWS. For RIMS, however, the two Plans start out and remain identical throughout the period; the difference between them never amounts to more than four schools either way, and they are the same or separated by only one school in three of the five years. The travel time never makes a difference with regard to reaching the RIMS; the differences in the early years solely reflect the Plans' different levels of effectiveness in cutting the number of RIWS.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by these two variations include substantial pupil flight. And, since more schools are involved in mandatory transportation in one Plan than in the other, the flight estimates for the two differ. Plan D1 projects a total student body of 559,000 in 1984-85, of whom 118,000 (or 21%) would be Black, 297,000 (or 53%) Hispanic, 50,000 (or 9%) Other Minorities, and 95,000 (or 17%) White. The total pupil population represents a loss of 37,000 (or 6%) below what would be projected for that year if there were no court-ordered desegregation plan involving mandatory elements. Most of those lost would be White, with that group showing a 20% drop below the demographic projection.

Plan D2 is projected to produce a total pupil population of 558,000 in 1984-85, of whom 118,000 (or 21%) would be Black, 297,000 (or 53%) Hispanic, 49,600 (or 9%) Other Minorities, and 93,000 (or 17%) White. The total pupil loss below demographic expectations would be 39,000 (or 7%), and Whites would experience a 21% loss below those projections.

Chart 37 depicts the numbers of pupils attending schools in each category under each Plan during the projection period. In brief, it shows that:

-- In Plan D1 the total number of pupils in Desegregated schools starts at 143,000 (or 26%) in 1980-81 and declines to 120,000 (or 21%) in 1984-85. The corresponding figures for Plan D2 are 168,000 (or 32%) and 123,000 (or 22%).

-- In Plan D1 the number of pupils in Segregated schools begins at 399,000 (or 74%) in 1980-81 and rises to 439,000 (or 79%) in 1984-85. The corresponding figures for Plan D2 are 356,000 (or 68%) and 435,000 (or 78%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 168,000 (or 32%), and that would be accomplished only in the first year. By 1984-85, this number is projected to shrink to the 120-123,000 range (or 21-22%). In the case of Plan D1 the forecast is for a drop after the first year, followed by one year of stasis, followed by a steady decline. The D2 pattern is an unbroken decline, with a brief hesitation in the fourth year.

The model suggests that the immediate effect of introduction of either Plan, as compared to actual conditions in 1979-80, would be a much larger increase in the number of pupils in Desegregated schools than would occur in the total number of such schools. Plan D1 would result in an expansion of 25,000 pupils (or 21%) in Desegregated schools in 1980-81 compared to the number that are actually in such institutions in 1979-80, and Plan D2 would add 50,000 pupils (or 42%).

Both Plans D1 and D2 would effectuate much more desegregation of pupils that would have occurred in the absence of any plan. Plan D1 is forecast to put 80,000 more pupils in Desegregated schools in 1980-81 and 56,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan D2 are 105,000 in 1980-81 and 63,000 in 1984-85. The odds that a pupil would attend a Desegregated school in 1984-85 would improve under both Plans from the one in 10 projected if there were no plan to about one in five.

Looking across the full projection period, the two Plans again show the converging phenomenon already described with regard to schools. Plan D2 begins with a substantial margin of additional pupil desegregation, but by the third year the two Plans are only about 5,000 pupils apart and they grow even closer in the last two years. In the last year neither Plan desegregates more than 22% of the pupils, and the two are within one percent of each other in terms of this measure of results.

Differential Effects on Grade Levels

Charts 38, 38A, 39, and 40 present, the elementary, junior high school, and high school effects of the two Plans, by racial/ethnic groups. In brief, they show that:

- Among elementary school pupils, sixth graders would generally make up the highest proportion in Desegregated schools (16%) under both Plans, while first graders would comprise the lowest (13% in Plan D1, and 14% in Plan D2).
- All junior high school pupils in Desegregated schools would fall into the 32-34% participation range, with ninth graders slightly more likely to be involved and seventh graders slightly less so than the average in most years.
- Among senior high school pupils, tenth graders would be the largest group (36% in Plan D1 and 39% in Plan D2), while twelfth graders would be the smallest (26% in Plan D1 and 29% in Plan D2).
- Between 72% and 82% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 65% to 75%, and for senior high school enrollees 59% to 73%.

Overall, the simulation indicates that extension of eligibility for mandatory transportation assignment to all grades 1-12 would not have enormous effects on the grade-by-grade profile of pupils in Desegregated schools. Elementary school pupils would constitute 16% of the total, up just a bit from their share in the grade-restricted variations. This gain would be made largely at the expense of junior high school pupils. Nevertheless, the share of junior high schoolers in such institutions would be twice that of elementary pupils. And, although tenth graders would be the largest single group in the Desegregated category, dropout rates and other factors would make eleventh and twelfth graders the smallest group.

Racial/Ethnic Mix of Schools

Charts 41, 42, and 43 present the racial/ethnic mix of, respectively, elementary, junior high, and senior high schools. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier. In brief, these Charts indicate that:

- The number of elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two plans in 1980-81 ranges from 68 (or 29% of all elementary schools) to 74 (still 29%). By 1984-85, this range narrows to 13-14%.
- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 231 (or 50% of all elementary schools) to 258 (or 55%). By 1984-85, this range narrows to 65-66%.

- -- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 16 (or 17% of all junior high schools) to 22 (or 23%). By 1984-85, this range narrows to 13-14%.
- -- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 45 (or 45% of all junior high schools) to 48 (or 51%). By 1984-85, this range changes to 63-64%.
- -- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 17 (or 17% of all high schools) to 20 (or 20%). By 1984-85, this range narrows to 16-17%.
- -- The number of senior high schools in the bands closest to "Segregated" in 1980-81 ranges from 56 (or 56% of all senior high schools) to 57 (or 57%). By 1984-85, this range closes to 62%.
- -- The senior high schools begin the period most heavily segregated in both Plans, but largely equalize with the other levels by the end of the five years.

Overall, the most pervasive effect shown by the Chart is that the Plans both emerge in 1984-85 with all levels of the system with the same 62-66% majority in the "most Segregated" band. At the outset only 45-48% of the junior high schools would be in this category, along with 50-55% of the elementary schools and 56% of the senior high schools. The effect of both Plans is largely to eliminate these differences over the projection period. The distribution in the "near-Desegregated" bands is symmetrical with this movement, ending with all levels in the 13-17% range in this category. Within these general trends, the differential effects of the two Plans are not very significant. They remain within six percent of each other at all times in both sets of bands.

Pairs/Clusters/Midsites

The complexities inherent in projecting the interplay of pupil flight and the announcement and partial activation of Pairs/Clusters/Midsites are discussed in the corresponding analysis of variations C1 and C2 (page 113). It is assumed here that the reader has read that discussion and, therefore, understands the terms used in this Section.

Charts 44 and 45 list the originally announced Pairs/Clusters/Midsites formed by the model under the restrictions of Plans D1 and D2, distinguishes those that are in fact activated, and separates them by how long each set lasts in the face of demographic pressures. (It will be recalled that matchings are made twice in the course of the five year period, once before the 1980-81 school year and again before the 1983-84 year, and that all Clusters contain three schools.) In brief, the Chart shows that:

-- Plan D1 would result in an announced total of 36 Pairs, five Clusters, and 11 Midsites (of which 18 Pairs, four Clusters, and eight Midsites would be activated) in 1980-81, changing to 38 announced Pairs, no Clusters, and six Midsites (of which 24 Pairs and six Midsites would be activated) by 1984-85.

-- Under Plan D1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 36 Pairs, five Clusters, and 11 Midsites would be announced in 1980, of which none would last through 1985. Thirty-eight new Pairs, no new Clusters, and six new Midsites would be announced in 1983.

- -- Plan D2 would result in an announced total of 76 Pairs, three Clusters, and 10 Midsites (of which 44 Pairs, three Clusters, and nine Midsites would be activated) in 1980-81, changing to 40 announced Pairs, no Clusters, and no Midsites (of which 27 Pairs would be activated) by 1984-85.
- -- Under Plan D2, no current Pairs, Clusters, or Midsites would endure in future years. All 76 Pairs, three Clusters, and 10 Midsites would be announced in 1980, of which only two Pairs would last through 1985. Thirty-eight new Pairs, no Clusters, and no Midsites would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by either Plan. Of the new matches made in 1980, none would emerge from the 1983 reassignment under Plan D1, and only two Pairs would survive under Plan D2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, very few -- or none -- of the resulting matches are any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of Desegregated schools, nearly every eligible school must be reassigned to a different grouping. Also, since both Plans desegregate fewer and fewer schools in each year after the second (1981-82), the new matches become less and less efficacious over time.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) are extremely noticeable in both Plans at several points during the projection period. In Plan D1, it invalidates 22 groupings (or 42% of all groupings) in 1980-83, and 14 (32%) in 1983-85. Under Plan D2, these factors invalidate

33 (or 37% of all) groupings in 1980-83, and 13 (or 33%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan D1 would have 13 groupings (ten Pairs, one Cluster, and two Midsites -- or 43% of the activated groups) in this partially invalidated category during 1980-83, and eight groupings (seven Pairs and one Midsite -- or 27% of the activated groups) in 1983-85. Plan D2 would have 27 groupings (23 Pairs, three Clusters, and one Midsite -- or 48% of all activated groups) partially invalidated in 1980-83, and three (all Pairs -- 11% of all activated groups) in that status during 1983-85.

Both Plans would encounter less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 13-27 (43-50% of all active) groupings created under either Plan would not be transporting pupils in at least one year. In the second interval only 3-8 (or 11-27%) of all activated groups would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would decline as the number of activated groups declined. Nevertheless, it is clear that the flight/demography combination would be very restrictive of the operation of mandatory linkages under the rules that govern this variation, particularly Plan D1. In the 1980-83 interval, 36 of 52 groupings (69%) announced under this Plan would be fully or partially invalidated by these factors. The invalid share would be lower in 1983-85 (48%), but still almost half.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be, as noted above, a complete change in the groupings of schools that are employed this year. Under Plan D1 there would also be a large decrease in the number of each kind of grouping now in actual use. Under Plan D2 the total number of announced Pairs/Clusters/ Midsites in 1980-81 would be nearly double the number actually in effect in 1979-80, but the number activated would be only about the same. The principal perceived difference would probably be the confusion caused by a large number of announced groupings in the spring, which then turned into a much smaller number of activated groupings in the fall.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/ Midsiting of the 15-minute travel time allowance that divides them. The extra time results in nearly twice as many groupings in Plan D2 as in Plan D1. And they are mostly new groupings -- only six of the Pairs announced in 1980 and 12 of the ones announced in 19 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, the sets of pupils involved in mandatory transport would be largely different, depending on which Plan were chosen.

Finally, the Chart shows the short-lived importance of Midsites in Plan D2 during the 1980-[illegible] interval. The extra 15-minute time allowance, coupled with [illegible] diversion of pupils to voluntary programs, encourages use of this device in the early years. That Plan would result in the announcement of 10 Midsites in 1980, and nine would be activated. However, demography and flight are then projected to catch up with these groupings, and no Midsites at all survive or are formed in 1983-85. Meanwhile, Clustering has become inefficient within the 30-minute limit of Plan D1 as the number of Whites in the pupil population falls because of demographic trends, but the use of Midsites becomes substantially more effective within those time bounds. By moving to Midsiting, Plan D1 can largely maintain the desegregation momentum permitted it within the rigors of the full/partial invalidation process. Still, of course, Plan D2 remains the more effective desegregator of both schools and pupils in all years of the projection. In the last year of the period, however, this difference is quite small.

Magnet Schools

For reasons explained in discussion of earlier variations, a simplified Chart presentation of Magnets formed and closed is impossible. Basically, the model projects the following:

-- Plan D1 would result in a total of 59 Magnets in 1980-81, of which 16 would be new and 43 would be from the current list. Of the current ones that would be preserved, all (or 73% of all Magnets) would be Segregated by the definition used herein. Plan D2 would generate 60 total Magnets in that year, 17 new and 43 old, of which all (or 73% of all Magnets) would be Segregated.

-- In 1984-85, Plan D1 would yield a total of 55 Magnets, of which 43 (or 78%) would be Segregated. The corresponding numbers for Plan D2 would be 56 and 43 (or 77% of all Magnets).

-- Under Plan D1 43 current Magnets would operate through the entire projection period, while 12 of those first opened in 1980-81 would survive the full five years.

-- Under Plan D2 43 current Magnets would also last the full period, and 13 of the 1980-81 crop of 17 would survive.

-- The number of pupils attending Magnets in 1980-81 under Plan D1 would be 11,000 (or 2% of all pupils). These pupils would be 24% Black, 46% Hispanic, 8% Other Minorities, and 22% White. Under Plan D2, the total number of pupils would be 12,000 (or 2% of all pupils), and the racial/ethnic breakdown would be 24% Black, 45% Hispanic, 8% Other Minorities, and 22% White.

-- By 1984-85 the number of pupils attending Magnets under Plan D1 would fall to 10,000 (or 2% of all pupils). They would then be 20% Black, 53% Hispanic, 8% Other Minorities, and 18% White. Under Plan D2 the total number of pupils in 1984-85 would be 10,500 (or 2% of all pupils), of whom 20% would be Black, 52% Hispanic, 8% Other Minorities, and 19% White.

Overall, the simulation indicates that under both Plans about three quarters of the Magnets at the beginning and end of the period would be Segregated, as the 43 1978-79 survivors make up that component throughout the five years. Turnover would not be absent, but would be relatively minor under either Plan. The number of pupils involved would decline slightly over the period, and the racial/ethnic mix would show a rising Hispanic share and a falling White percentage. However, the program would never involve more than 2% of the pupil population and would therefore have little influence on the broader desegregation picture.

The *immediate effect* of the installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of Magnets (from 55 to 59-60), but a slight decrease in the number of pupils enrolled in them (from 12,000 to 11-12,000). Of the 55 Magnets in existence in 1979-80, 43 would survive the full five years. But there would be a dramatic change in the current balance among racial/ethnic groups. Combined Minority participation would rise from 56% of all Magnet attendees in 1979-80 to 78% in 1980-81, while White enrollment dropped correspondingly. The assumed closing of all current Magnets with fewer than 10% each of Whites and Combined Minorities would reduce White participation much more than that of Minorities.

The difference between *the two Plans* is modest. Plan D2 would always have an extra Magnet or two and up to 1,000 more pupils, but the difference is not significant. The two would show the same pattern of change in racial/ethnic mix over the period, with Hispanics rising, Blacks and Whites dropping, and Other Minorities remaining stable.

Pupils Transported

Chart 46 shows the total number of pupils who would be voluntarily transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

- From 37,000 (or 7% of all pupils) to 43,000 (or 8%) pupils would be transported in 1980-81. The corresponding range for 1984-85 would be 34,000 (or 6%) to 35,000 (still 6%).
- Most pupils transported in all years would be elementary school pupils; in 1980-81, 57-64% of all pupils transported would be from the elementary grades. In 1984-85, this range would narrow to 53-54%.
- The burden of transportation to non-neighborhood schools would fall predominantly upon Minority pupils in both Plans in all years. In 1980-81, from 82 to 87% of all pupils transported would be Minority, with Blacks making up 30-43%, Hispanics 40-4[illegible]%, and Other Minorities 3-4%. In 1984-85 the travel share of Minorities would be 84-85%, and the individual share of Blacks would be 37%, for Hispanics from 44-45%, and for Other Minorities 3%.
- Of all Minority pupils in the system, from 8-9% would be transported in 1980-81, falling to 6% in 1984-85. Blacks would move from 12% in 1980-81 to 10% in 1984-85. The corresponding numbers

for Hispanics would be 6% and 5%; and for Other Minorities 3% and 2%. The share of White pupils transported would start the period in the 3% range, and rise to the 5% range by 1984-85.

Overall, the simulation suggests that the number of pupils transported would fall slightly over the period under Plan D1, and about 20% under Plan D2. However, the two would end up within 1,000 pupils of each other in 1984-85. The great majority (82-87%) of pupils transported would be Minorities, with Hispanics accounting for the increase, Blacks falling slightly, and Other Minorities holding steady. Nevertheless, by 1984-85 only about one Minority pupil in 20 would be transported. The odds that any pupil of any race/ethnicity would be transported would be about one in 14.

The immediate effect of adopting Plan D1 would be a noticeable decrease from the current total of 43,000 pupils transported to 37,000. Plan D2 would yield almost precisely the current number. The difference would be almost entirely in the number of White pupils transported; D1 would cut the number from about 8,000 to 4,600, while D2 would maintain it at the current level. A large percentage decrease would be effected by either Plan in the current number of pupils mandatorily transported. Plan D1 would lower this figure from the 1979-80 total of 16,000 to 5,000 in 1980-81. Plan D2 would cut it to 11,000. These differential effect of the two Plans would disappear in later years; as both would mandatorily transport 7,000 pupils in 1984-85. (See Chart 47).

Charts 48 and 49 break down the total pupils transported into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

-- Plan D1 would result in transportation of 11,000 pupils (or 2% of all pupils) to Magnets in 1980-81, falling to 10,000 (or 1%) in 1984-85. Under Plan D2 the

1980-81 figure would be 12,000 (or 2% of all pupils) and the 1984-85 estimate 10,000 (still 2%).

-- Under Plan D1 the 1980-81 total of pupils transported to Magnets would include 3,000 (or 24%) Blacks, 5,000 (or 46%) Hispanics, 854 (or 8%) Other Minorities, and 2,500 (or 22% Whites. Plan D2 would result in 3,000 (or 24%) Black pupils being transported, 5,000 (or 46%) Hispanics, 900 (or 8%) Other Minorities, and 3,000 (or 22%) Whites.

-- Under Plan D1 the 1984-85 total of pupils transported to Magnets would include 2,000 (or 20%) Blacks, 6,000 (or 53%) Hispanics, 900 (or 8%) Other Minorities, and 2,000 (or 18%) Whites. Plan D2 would include 2,000 (or 20%) Blacks, 6,000 (or 53%) Hispanics, 900 (or 8%) Other Minorities, and 2,000 (or 19%) Whites.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would be somewhat lower in 1984-85 than in 1980-81. The racial/ethnic mix of the Magnet pupils would show a rise in the Hispanic component, a fall in the Black and White shares, and relative stability for Other Minorities. By the end of the period, no more than 2% of any group would be transported to Magnets.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of pupils transported to Magnets, despite the slight decrease in the number of Magnet enrollees. Pupils who now attend completely Segregated Magnets (which the model assumes are closed) would tend to live closer to those schools than would pupils attending new, Desegregated Magnets. As a result, total pupils transported to Magnets would rise from the current total of 7,000 to 10-11,000. The District has no detailed data on the racial/ ethnic characteristics of pupils currently transported to Magnets, so comparisons must refer to Whites and Combined Minorities only. At present Minorities represent 56% of the total, and Whites 44%. Under these Plans the Minority share would rise to 90%.

The two Plans would exhibit the convergence phenomenon with respect to Magnet transportation. The numbers would be virtually identical starting in the third year of the period, having started only 1,000 apart.

Chart 49 presents the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools of the West Side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites or Other Minorities; thus, all pupils projected to be transported in this program are Black and Hispanic pupils.

In brief, the Chart shows that:

-- Under Plan D1 the number of PWT pupils in 1980-81 would be 20,000 (or 6% of all Black and Hispanic pupils). The corresponding figures for Plan D2 would be the same.

-- Of the Plan D1 total in 1980-81, 12,000 (or 61%) of PWT pupils would be Black, 8,000 (or 39%) would be Hispanic. The Plan D2 results would be 12,000 (or 60%) Blacks, and 8,000 (or 40%) Hispanic.

-- In 1984-85, both Plans would place 17,000 pupils (or 4%) of all Black and Hispanic pupils in PWT.

Overall, the absolute number of PWT participants in both Plan is projected to drop by about 15% by 1984-85, producing a percentage drop from 6% of all Black and Hispanic pupils to 4% over the period. The decrease in participation would be in approximately equal proportions in the 1980-81 Black and Hispanic PWT participant totals, but because the Hispanic population would be growing much faster, the same absolute numbers of Hispanics become a smaller share of total Hispanic enrollment.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of pupils transported under this program. The current total is 17,000 (or 5% of all Minority pupils), while the Plans would produce 20,000 (still 5%). The District has no data with regard to the balance between Blacks and Hispanics in the current program, so no further comparison is possible.

As is evident from the Chart, the two Plans would have almost identical effects upon PWT in the latter years of the period. The projections are so close that rounding them to thousands, as is done above, makes them indistinguishable.

Average One-Way Travel Times

Chart 50 presents the average one-way travel times experienced by all pupils transported under the all-voluntary Plans. In brief, it shows that:

- Plan D1 would result in 1980-81 in average travel times of 35 minutes for elementary school pupils, 48 minutes for junior high pupils, and 48 minutes for high schoolers. The corresponding figures for Plan D2 are 38 minutes, 48 minutes, and 47 minutes.
- The 1980-81 Plan D1 figures would break down to an average of 48 minutes for

all Black pupils, 36 minutes for all Hispanics, 36 minutes for Other Minorities, and 31 minutes for Whites. Plan D2 results would divide into an average of 48 minutes for all Black pupils, 38 minutes for Hispanics, 40 minutes for Other Minorities, and [illegible] minutes for Whites.

-- In 1984-85, Plan D1 would generate average travel times of 37 minutes for elementary school pupils, 51 minutes for junior high pupils, and 44 minutes for senior high pupils. The corresponding figures for Plan D2 are 39 minutes, 50 minutes, and 47 minutes.

-- The 1984-85 Plan D1 figures would break down to an average of 51 minutes for all Black pupils, 39 minutes for all Hispanics, 36 minutes for Other Minorities, and 30 minutes for Whites. The 1984-85 Plan D2 figures would break down to an average of 51 minutes for all Black pupils, 41 minutes for all Hispanics, 37 minutes for Other Minorities, and 33 minutes for Whites.

Overall, the two Plans would both yield slightly longer average travel times over the period, moving from a system-wide average of 41-42 minutes in 1981 to 42-43 minutes in 1984-85. The average burden would remain substantially higher for junior and senior high schoolers than for elementary pupils. Also, Minorities would continue to experience substantially higher averages than Whites, with Blacks encountering by far the highest average, some 60-70% longer than the time spent in travel by the average White pupil.

The most significant fact about the two Plans is that the lower travel ceiling in D1 makes very little difference in the averages. Its sole result seems to be lowering the elementary school averages by 2-3 minutes. Even though all of the grades are eventually included in eligibility for mandatory transportation in these Plans, 74-86% of transported pupils are in voluntary programs in all years. This results in the voluntary averages controlling the system-wide averages, so that the difference in travel time ceilings on mandatory transportation makes very little difference in the results of the two Plans. The gap between them is never more than three minutes for any group in any year.

Chart 51 projects the Magnet component of average travel times, while Chart 52 does the same for the PWT component. Chart 53 presents the averages for mandatorily transported pupils. They are self-explanatory.

Summary of Quantifiable Findings

	Plan D1	Plan D2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	-38,000 (or 7%)	-55,000 (or 10%)
Projected total	541,000	524,000
1984-85		
Expected	597,000	597,000
Flight	-37,000 (or 6%)	-39,000 (or 7%)
Projected total	559,000	558,000
Desegregated Schools		
1980-81	185 (or 28%)	226 (or 34%)
1984-85	157 (or 24%)	160 (or 24%)
Segregated Schools		
1980-81		
RIWS	75	39
RIMS	400	396
Total	475 (or 72%)	435 (or 66%)

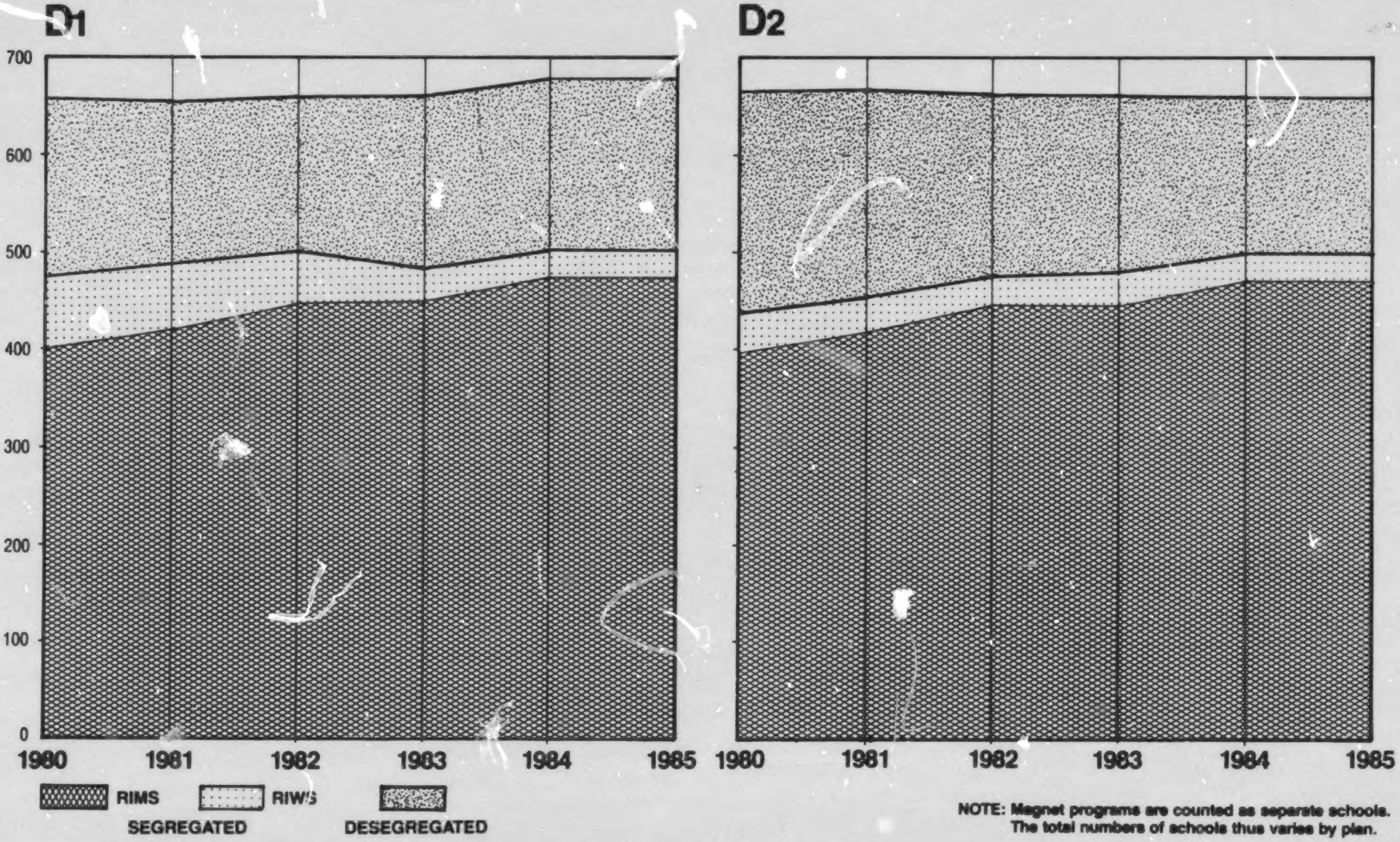
	Plan D1	Plan D2
Segregated Schools (Cont'd.)		
1984-85		
RIWS	26	25
RIMS	473	472
Total	499 (or 76%)	497 (or 76%)
Desegregated Pupils		
1980-81	143,000 (or 26%)	168,000 (or 32%)
1984-85	120,000 (or 21%)	123,000 (or 22%)
Segregated Pupils		
1980-81	399,000 (or 74%)	356,000 (or 68%)
1984-85	439,000 (or 79%)	435,000 (or 78%)
Magnet Schools		
1980-81	59	60
1984-85	55	56
Magnet Pupils		
1980-81		
Desegregated	3,076 (or 27%)	3,300 (or 28%)
Segregated	8,342 (or 73%)	8,530 (or 72%)
Total	11,418	11,830
1984-85		
Desegregated	2,281 (or 21%)	2,192 (or 21%)
Segregated	8,120 (or 79%)	8,309 (or 79%)
Total	10,401	10,501
PWT Pupils		
1980-81		
Black	12,000	12,000
Hispanic	8,000	8,000
Total	20,000	20,000

	Plan D1	Plan D2
PWT Pupils (Cont'd.)		
1984-85		
Black	10,000	10,000
Hispanic	7,000	7,000
Total	17,000	17,000
Pupils Transported		
1980-81		
Voluntary	32,000 (or 86%)	32,000 (or 74%)
Mandatory	5,000 (or 14%)	11,000 (or 26%)
Total	37,000	43,000
1984-85		
Voluntary	28,000 (or 80%)	28,000 (or 80%)
Mandatory	7,000 (or 20%)	7,000 (or 20%)
Total	35,000	35,000
Average Travel Times		
1980-81		
Overall	41 minutes	42 minutes
Black	48	48
Hispanic	36	38
Other Minority	36	40
White	31	37
1984-85		
Overall	42	43
Black	51	51
Hispanic	39	41
Other Minority	36	37
White	30	33

CHARTS FOR VARIATIONS D1 AND D2

CHART 36

VOLUNTARY/MANDATORY PLANS D1 AND D2
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

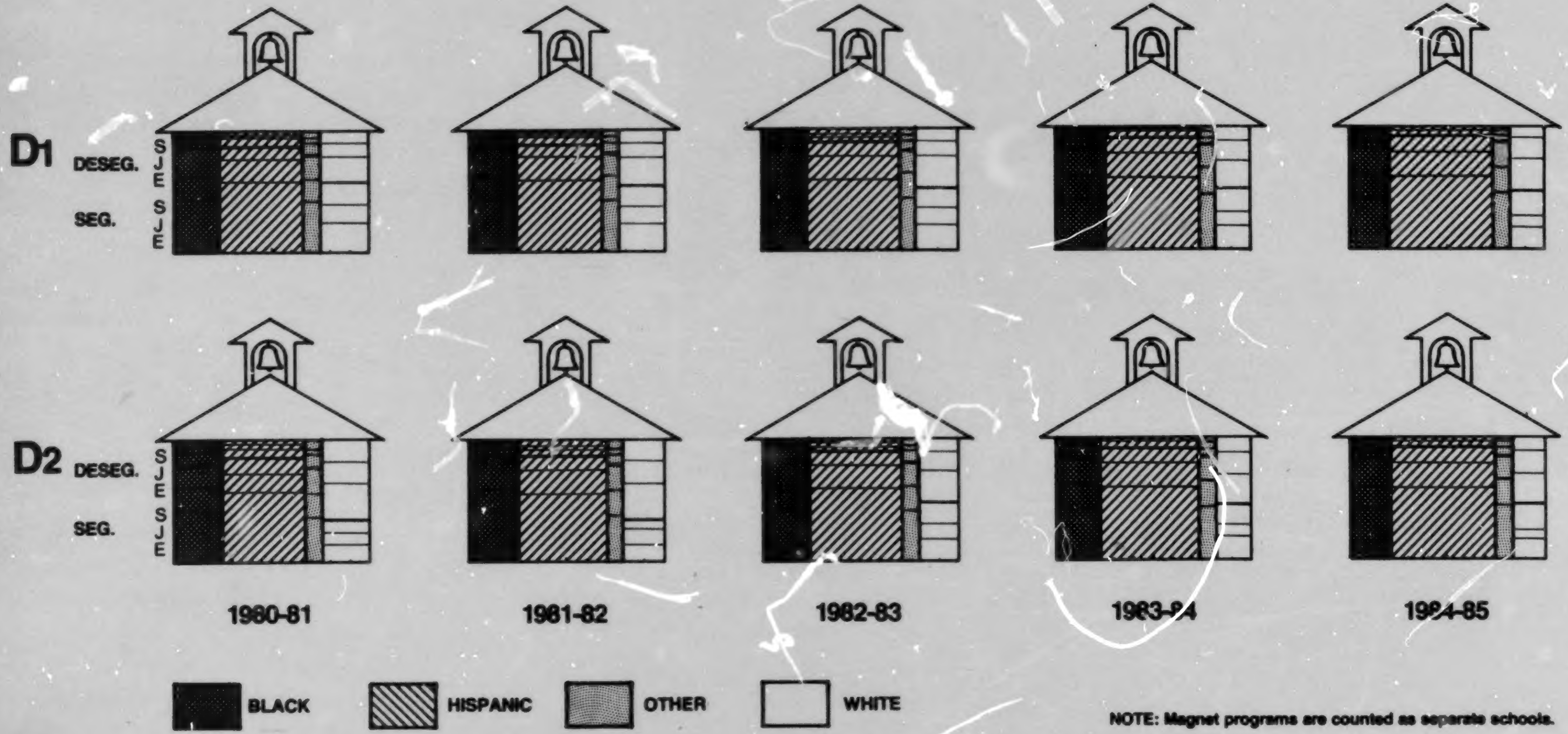


NOTE: Magnet programs are counted as separate schools.
The total numbers of schools thus varies by plan.

CHART 37

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

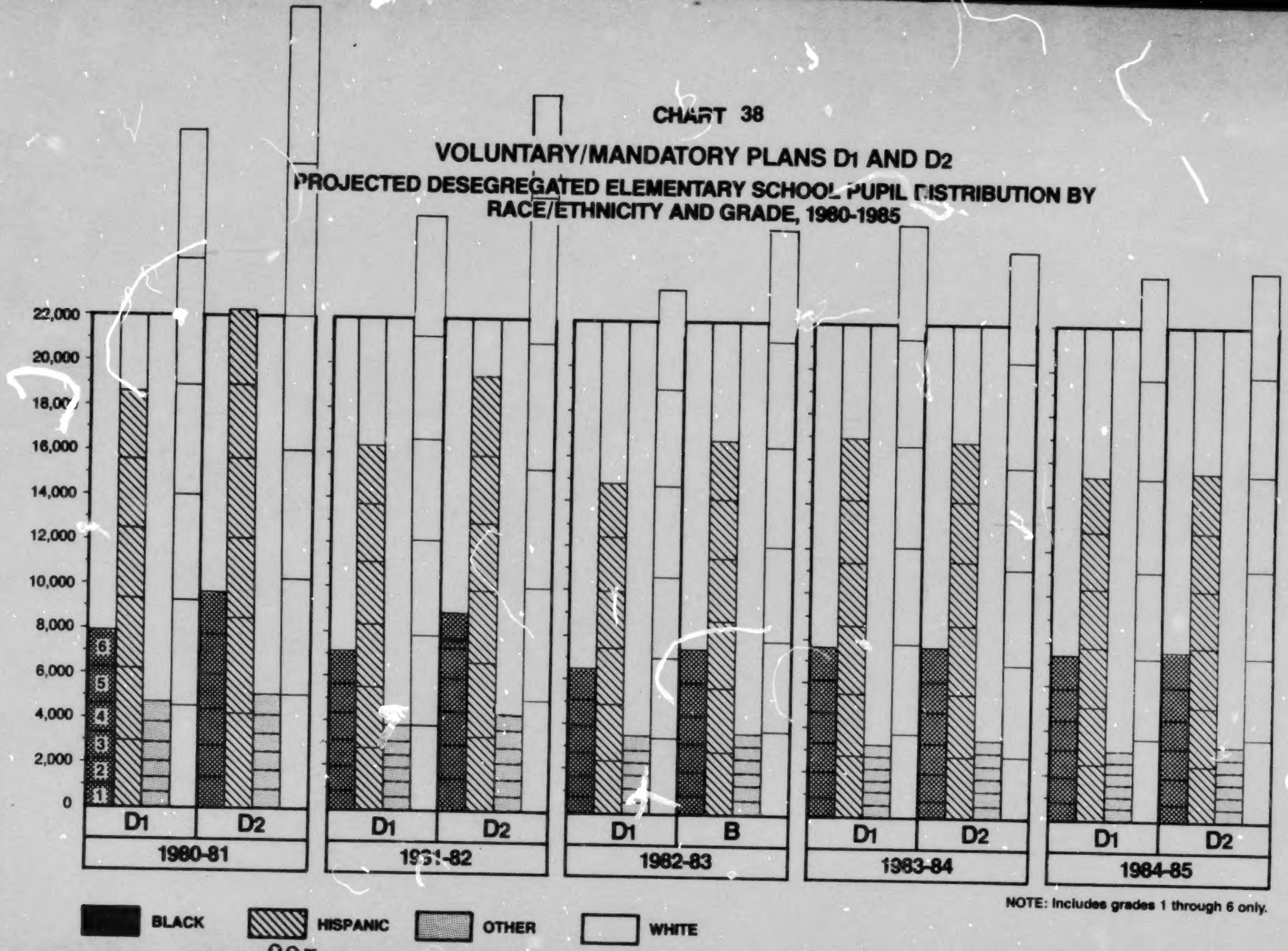


NOTE: Magnet programs are counted as separate schools.

CHART 38

VOLUNTARY/MANDATORY PLANS D_1 AND D_2

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

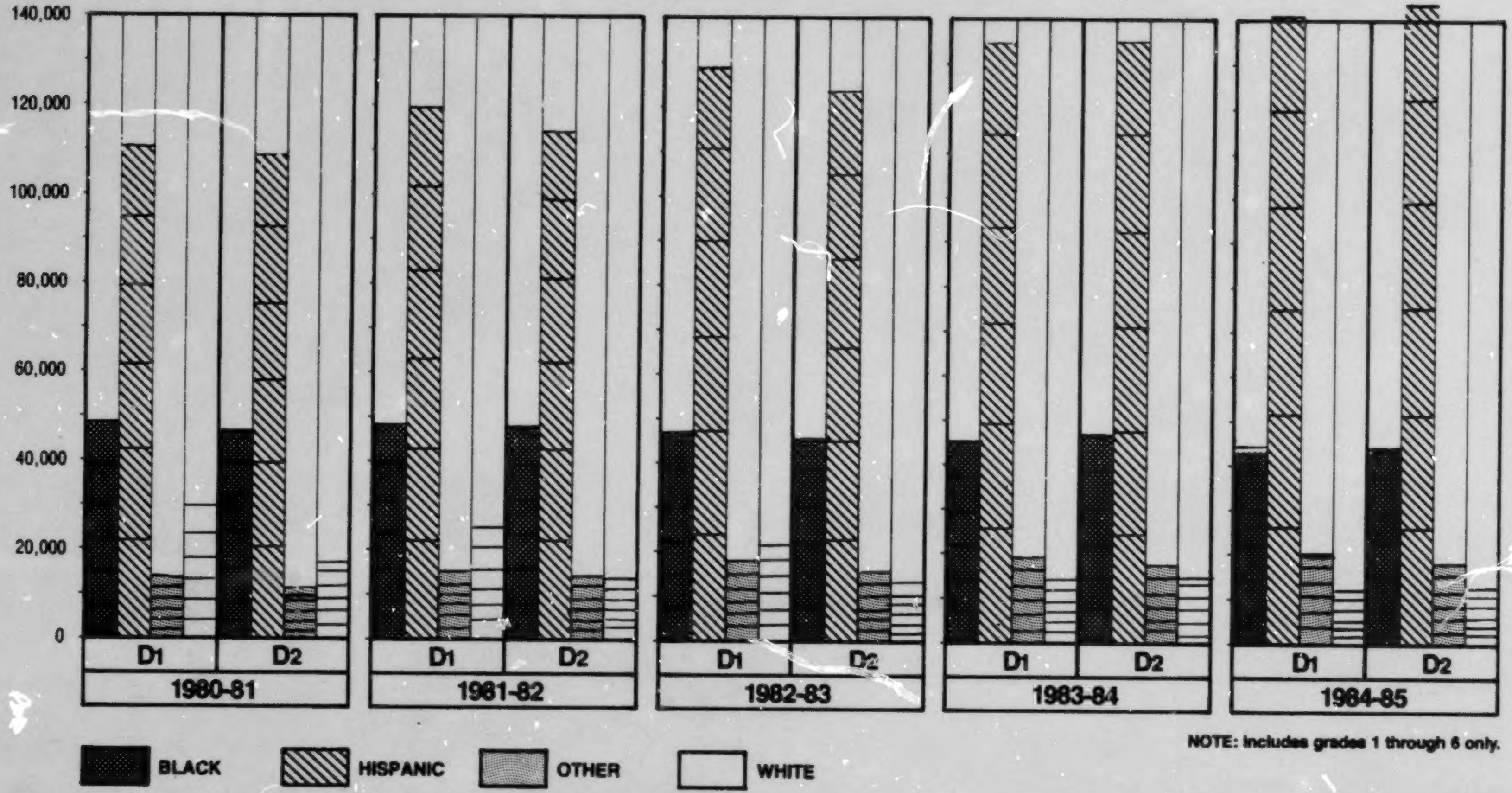


NOTE: Includes grades 1 through 6 only.

CHART 38 A

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



NOTE: Includes grades 1 through 6 only.

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CHART 39

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

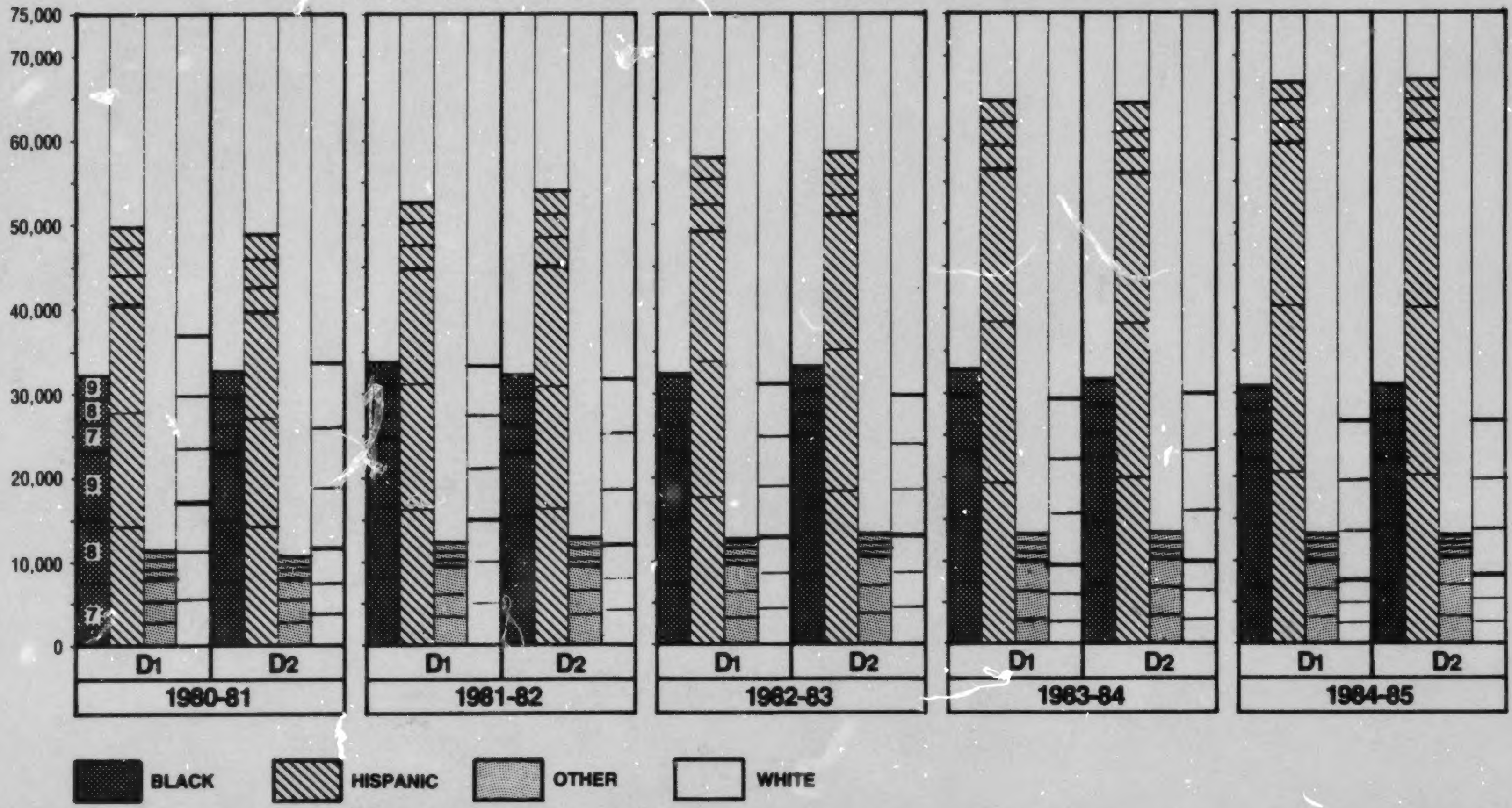


CHART 40

VOLUNTARY/MANDATORY PLANS D1 AND D2
PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL
PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985

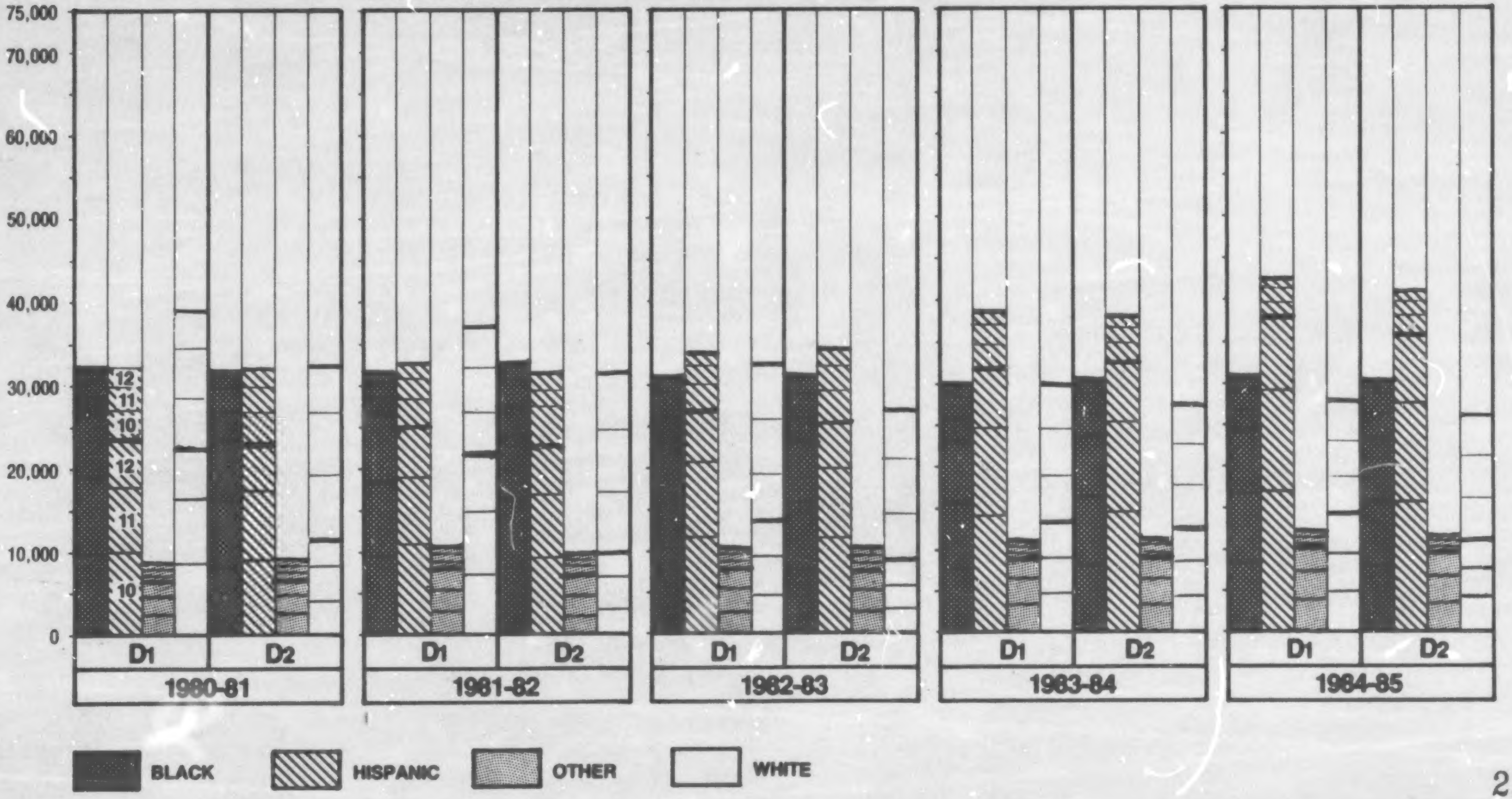


CHART 41

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

SCHOOL YEAR	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
1980-81	17	1	26	13	136	170	48	55	241	230
1981-82	12	1	26	9	123	157	48	43	257	258
1982-83	8	1	22	8	109	133	44	45	283	279
1983-84	2	2	13	13	127	134	37	37	287	280
1984-85	1	2	8	7	115	118	33	36	308	302

NOTE: Magnet programs are counted as separate schools.

CHART 42

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
1980-81	0	0	6	3	27	30	16	13	45	48
1981-82	0	0	5	3	25	27	13	13	51	51
1982-83	0	0	4	3	25	23	10	13	55	55
1983-84	0	0	2	2	24	24	11	12	57	56
1984-85	0	0	1	1	21	22	11	12	60	59

NOTE: Magnet programs are counted as separate schools.

CHART 43

VOLUNTARY/MANDATORY PLANS D1 AND D2
PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

SCHOOL YEAR	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
1980-81	13	11	13	11	22	26	7	6	43	44
1981-82	14	12	12	8	20	26	7	6	45	46
1982-83	12	11	8	6	24	27	5	5	49	49
1983-84	10	10	6	6	26	23	7	10	49	49
1984-85	11	10	5	5	21	20	11	12	50	51

NOTE: Magnet programs are counted as separate schools.

CHART 44

VOLUNTARY/MANDATORY PLAN D1
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

None

1980-83 ONLY

Pairs:

Andasol - Morningside
Apperson - Glenwood
Balboa - Noble
*Beachy - Plummer
Beckford - Filmore
*Bellagio - Palms
Brainard - Mt. View
*Brentwood Science - Broadway
Camellia - Gledhill
Canoga Park - Hart
*Carthay Center - Warner
Castlebay Lane - Victory
*Charnock - Westwood
*Cheremoya - Van Ness
*Cohasset - Lankershim
Darby - Vaughn
Dearborn - Vena
*Dyer - Knollwood
El Oro - Osceola
Emelita - Van Nuys
Fernangeles - Van Gogh
Granada - Haddon
*Grant - Toluca Lake
Hesby - Selma
*Kentwood - Loyola Village
Lanai - Sterry
Mayall - Roscoe
*Queen Anne - 3rd Street
Richland - Sherman Oaks
Sylvan Park - Wilbur
*Lawrence JHS - San Fernando JHS
*Le Conte JHS - Reed JHS
*Maclay JHS - Northridge JHS
*Mt. Gleason JHS - Pacoima JHS
Grant SHS - Hollywood SHS
*Kennedy SHS - San Fernando SHS

Clusters:

Telfair - Devonshire - Lemay
O'Melveny - Anatola - Germain
*Sharp - Calahan - Reseda
San Fernando - Gault - Superior
Pacoima - Lorne - Topeka Drive

Midsites:

Burbank - Alexandria - Rhoda
Colfax - Allesandro - Nestle
Kester - Bertrand - Brockton
*Dixie Canyon - Collier - Rosemont
Monlux - Dayton - Encino
Canterbury - Garden Grove - Montague
*Riverside - Ra[illegible]a - Vanalden
Chandler - Santa Monica - Tarzana
*Marquez - Topanga - Westminster
Millikan JHS - Sutter JHS - Virgil JHS
No. Hollywood SHS - Birmingham SHS - Fairfax SHS

1983-85 ONLY

Pairs:

Andasol - El Dorado
Balboa - Filmore
Beachy - Germain
Brainard - Pinewood
*Calahan - Oso
Cantara - Wilbur
Canterbury - Van Gogh
*Carpenter - Oxnard
Castlebay Lane - Osceola
Collier - Van Nuys
Darby - Gridley
Dearborn - Herrick
*Dixie Canyon - Selma
*Enadia - Highlander
Encino - Ranchito
Fullbright - Sylvan Park
*Area 7 Alternative' - Mt. Washington
Hart - Nevada
*Haskell - Newcastle
Hazeltine - Vanalden
Hesby - Valley View
Lanai - Richland
*Langdon - Melvin
*Lankershim - Riverside
*Laurel - Roscomare
Lemay - Parthenia
Limerick - Noble
Napa - Sunny Brae
Nestle - Plummer
*Anchorage - Coeur D'Alene
Reseda - Woodlake
*Rinaldi - Winnetka
Topeka Drive - Vena
*De Portola JHS - Northridge JHS
*Frost JHS - San Fernando JHS

*Parkman JHS - Sepulveda JHS
Chatsworth SHS - San Fernando SHS
Reseda SHS - Van Nuys SHS

Midsites:

Valley Alternative - Calabash - Sharp
Lorne - Capistrano - Pacoima
Granda - Chatsworth - Sylmar
Anatola - O'Melveny - Serrania
Sherman Oaks - Sterry - Woodland Hills
Francis Poly SHS - Hollywood SHS - Verdugo Hills SHS

* means grouping would never be activated during projection period.

CHART 45

VOLUNTARY/MANDATORY PLAN D2
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Dearborn - Vena
Osceola - Van Gogh

1980-83 ONLY

Pairs:

*Alexandria - Oakdale Avenue
*Allesandro - Gledhill
Anatola - Noble
Andasol - Camellia
Annandale - Sherman Oaks
Apperson - Yorkdale
Atwater - Nestle
Balboa - Roscoe
*Beachy - Calahan
Beckford - Glenfeliz
*Bellagio - Crescent Heights
Bertrand - Van Nuys
*Blythe - Palms
Braddock - Wilbur
Brainard - Superior
*Brentwood Science - Broadway
Brockton - Newcastle
*Saturn - Westwood
*Cahuenga - Toluca Lake
Calabash - Grant
*Canoga Park - Hart
Capistrano - Filmore
Carthay Center - Gault
Castlebay Lane - Sylvan Park
Charnock - Lorne
Chatsworth - O'Melveny
*Cheremoya - Van Ness
*Clifford - Cohasset
Coliseum - Lanai
Collier - Dayton
Darby - Vaughn
Delevan - Knollwood
Devonshire - Fernangeles
Dyer - El Oro
Elysian - Encino
Emelita - Virginia
Fenton - Germain
Fullbright - Sterry
Garden Grove - Lockwood
Glenwood - Mayall
Granada - Morningside
Haddon - Oso
Hesby - Loyola Village
*Kentwood - 186th Street
*Lankershim - Reseda
Lemay - Playa Del Rey
Limerick - San Fernando
Mayberry - Vanalden
Melvin - Selma
Montague - Nevada
Mt. View - Rockdale
*Plummer - Toland Way
*Queen Anne - 3rd Street
Ramona - Serrania
*Rhoda - Solano
*Richland - Tarzana
Santa Monica - Sunny Brae
*Shirley - Short
Topanga - Westminster
Topeka Drive - Victory
Vine - Woodlake
*Warner - Wilshire Crest
*Bancroft JHS - Reed JHS
*Columbus JHS - Pacoima JHS
*Hughes JHS - Le Conte JHS
*Irving JHS - Mt. Gleason JHS
*Lawrence JHS - Maclay JHS
*Northridge JHS - Webster JHS
*San Fernando JHS - Sutter JHS
*Birmingham SHS - Hamilton SHS
*Fairfax SHS - Monroe SHS
Franklin SHS - Verdugo Hills SHS
*Granada Hills SHS - San Fernando SHS
*Grant SHS - Lincoln SHS
Hollywood SHS - Reseda SHS
*Kennedy SHS - Marshall SHS

Clusters:

Pacoima - Calvert - Enadia
Sharp - Haynes - Winnetka
Telfair - Hamlin - Woodland Hills

Midsites:

Valley Alternative - Baldwin Hills - Lockhurst
Kester - Bridge - Platt Ranch
Chandler - Cortez - Welby
Stagg - Highlander - Shenandoah
Bassett - Hoover - Justice

Parthenia - Pomelo - Stoner
*Sequoia JHS - Hale JHS - Pastuer JHS
Van Nuys SHS - Belmont SHS - Cleveland SHS
Francis Poly SHS - Chatsworth SHS - Los Angeles SHS
No. Hollywood SHS - Roosevelt SHS - Taft SHS

1983-85 ONLY

Pairs:

*Anatola - Parthenia
Andasol - El Dorado
Balboa - Plummer
Beachy - Topeka Drive
Brockton - Serrania
Calabash - Langdon
Calahan - Capistrano
Cantara - Pomelo
Canterbury - Limerick
*Carpenter - Oxnard
Castlebay Lane - Herrick
Chatsworth - Noble
Collier - Van Nuys
Darby - Rinaldi
*Dixie Canyon - Lankershim
Dyer - Germain
*Enadia - Highlander
Encino - Ranchito
*Fair - Riverside
*Fenton - Pinewood

Filmore - Vanalden
Fullbright - Reseda
*Area 7 Alternative - Mt. Washington
Hamlin - Topanga
Hart - Nevada
Haskell - Hesby
Hazeltine - Woodland Hills
*Laurel - Roscomare
Napa - Sunny Brae
Nestle - Richland
*Anchorage - Coeur D'Alene
Sterry - Wilbur
Valley View - Welby
De Portola JHS - Sutter JHS
*Frost JHS - San Fernando JHS
*Parkman JHS - Sepulveda JHS
*Canoga Park SHS - Van Nuys SHS
Chatsworth SHS - Monroe SHS
El Camino Real SHS - San Fernando SHS
*Francis Poly SHS - Verdugo Hills SHS

*means grouping would never be activated during projection period.

CHART 46

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

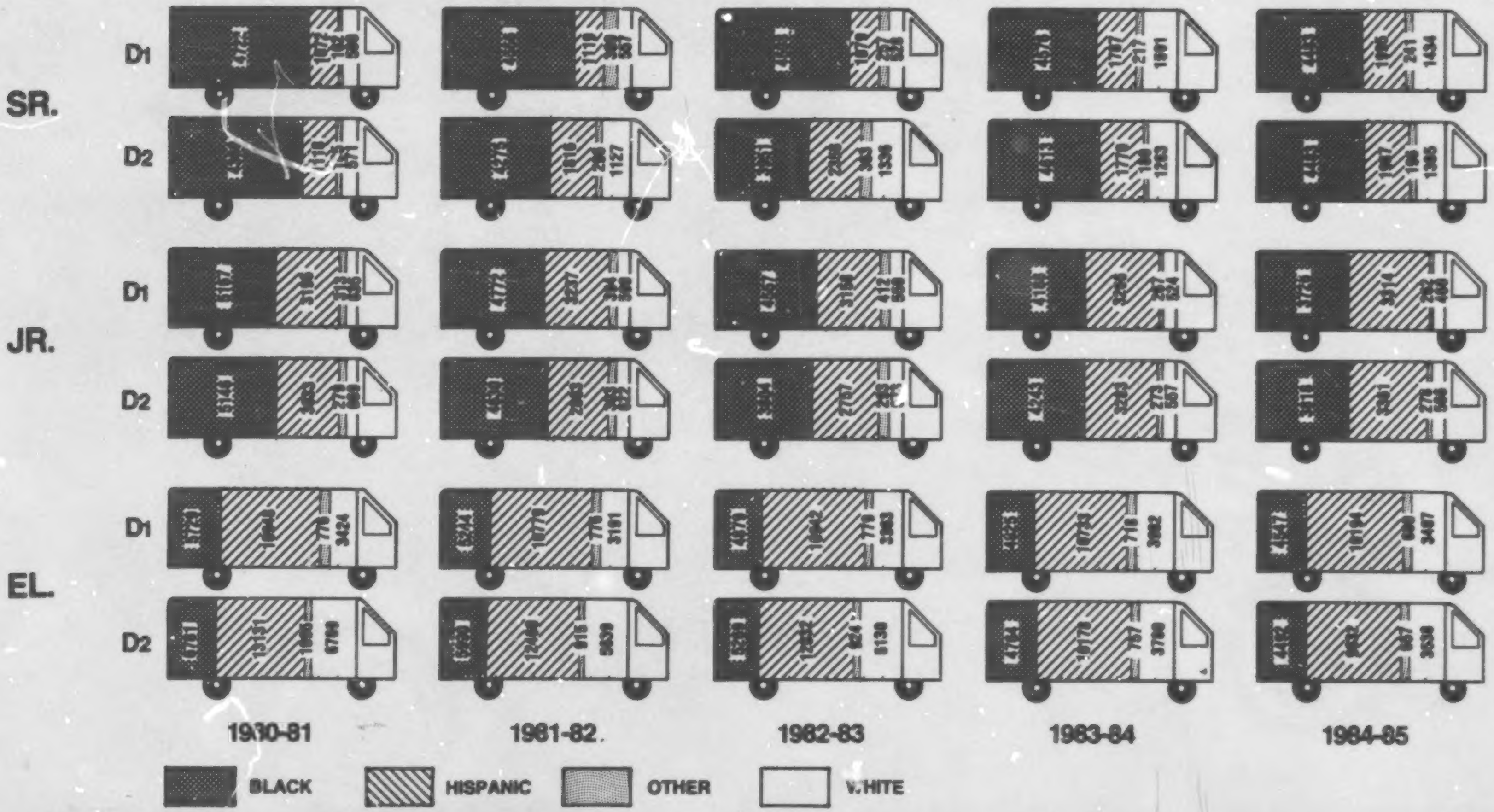


CHART 47

VOLUNTARY/MANDATORY PLANS D1 AND D2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

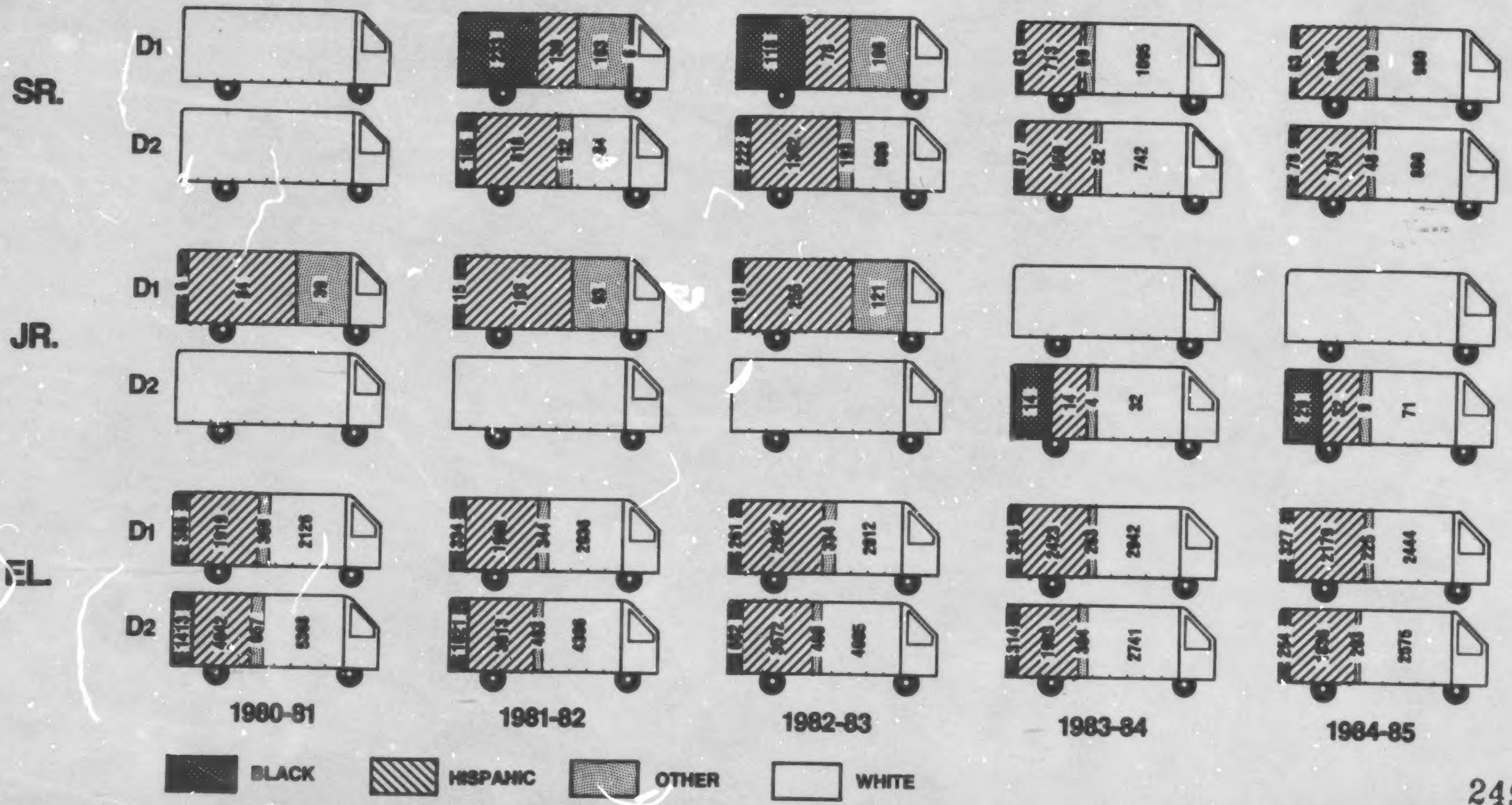


CHART 48

VOLUNTARY/MANDATORY PLANS D_1 AND D_2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

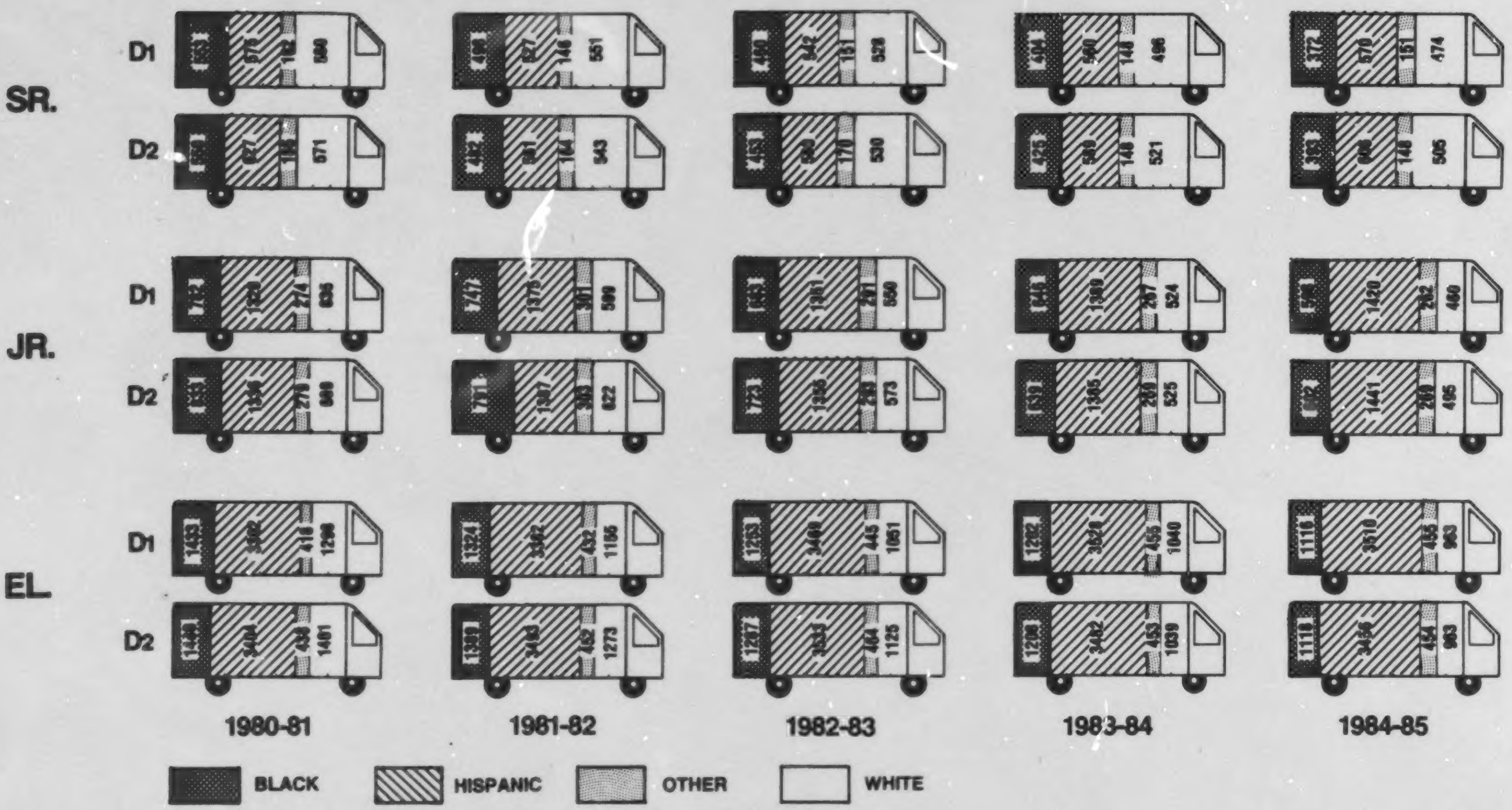


CHART 49

VOLUNTARY/MANDATORY PLANS D_1 AND D_2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED UNDER PWT PROGRAM, BY RACE/ETHNICITY AND LEVEL, 1980-1985

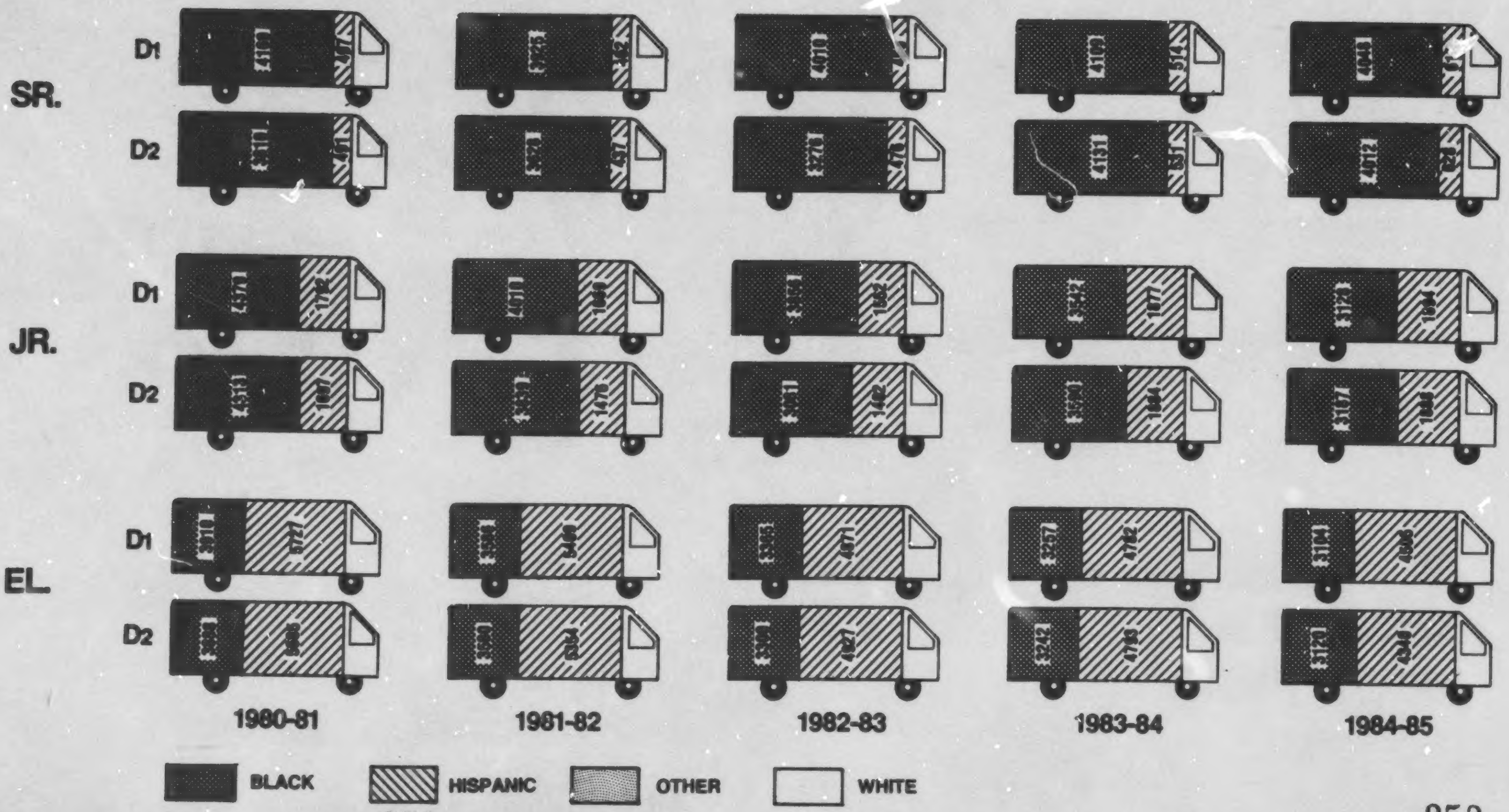
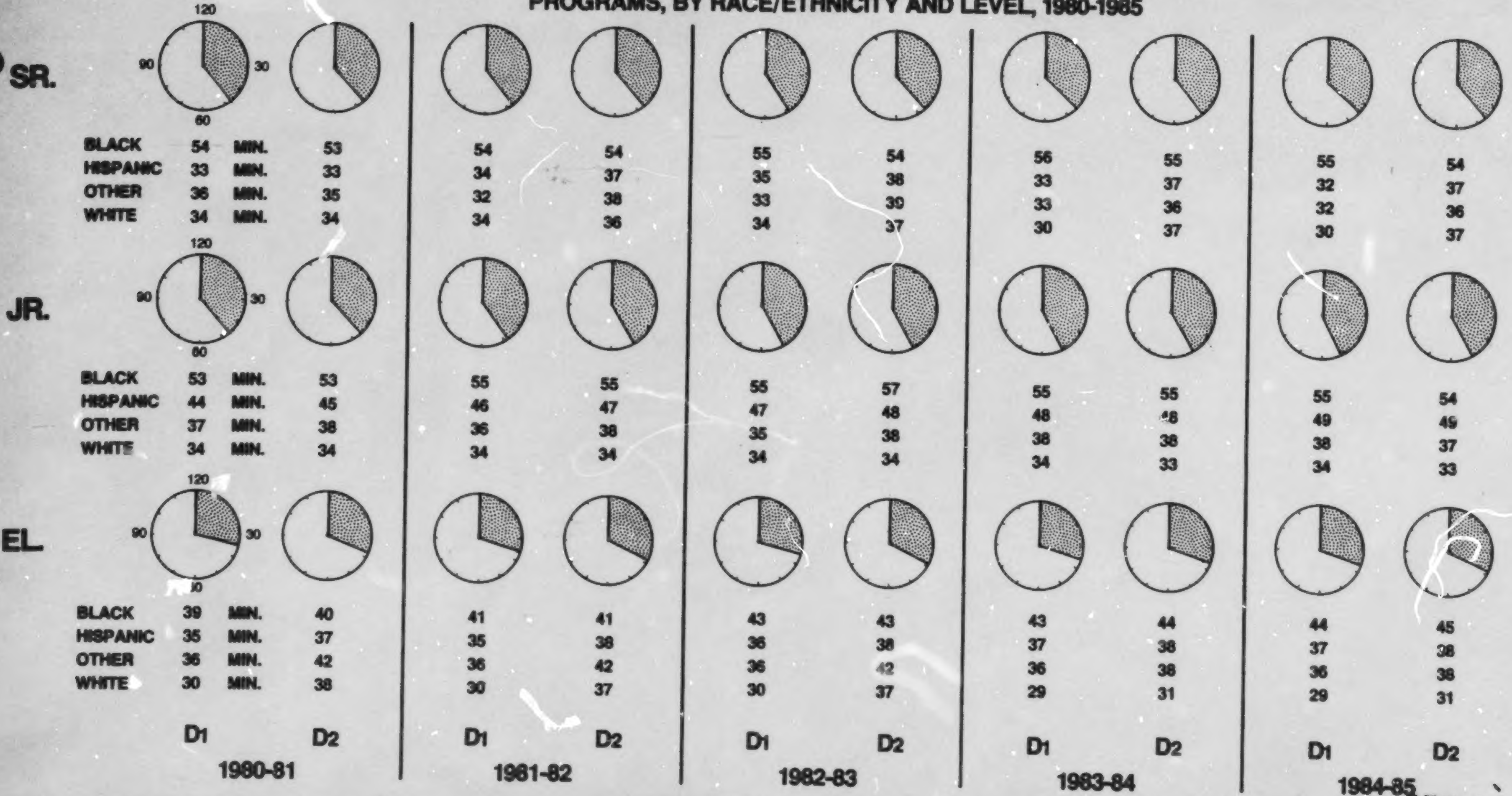


CHART 50

VOLUNTARY/MANDATORY PLANS D1 AND D2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



SR.

	1980-81 D1	1980-81 D2	1981-82 D1	1981-82 D2	1982-83 D1	1982-83 D2	1983-84 D1	1983-84 D2	1984-85 D1	1984-85 D2
BLACK	54 MIN.	53	54	54	55	54	56	55	55	54
HISPANIC	33 MIN.	33	34	37	35	38	33	37	32	37
OTHER	36 MIN.	35	32	38	33	39	33	36	32	36
WHITE	34 MIN.	34	34	36	34	37	30	37	30	37

JR.

	1980-81 D1	1980-81 D2	1981-82 D1	1981-82 D2	1982-83 D1	1982-83 D2	1983-84 D1	1983-84 D2	1984-85 D1	1984-85 D2
BLACK	53 MIN.	53	55	55	55	57	55	55	55	54
HISPANIC	44 MIN.	45	46	47	47	48	48	48	49	49
OTHER	37 MIN.	38	36	38	35	38	38	38	38	37
WHITE	34 MIN.	34	34	34	34	34	34	33	34	33

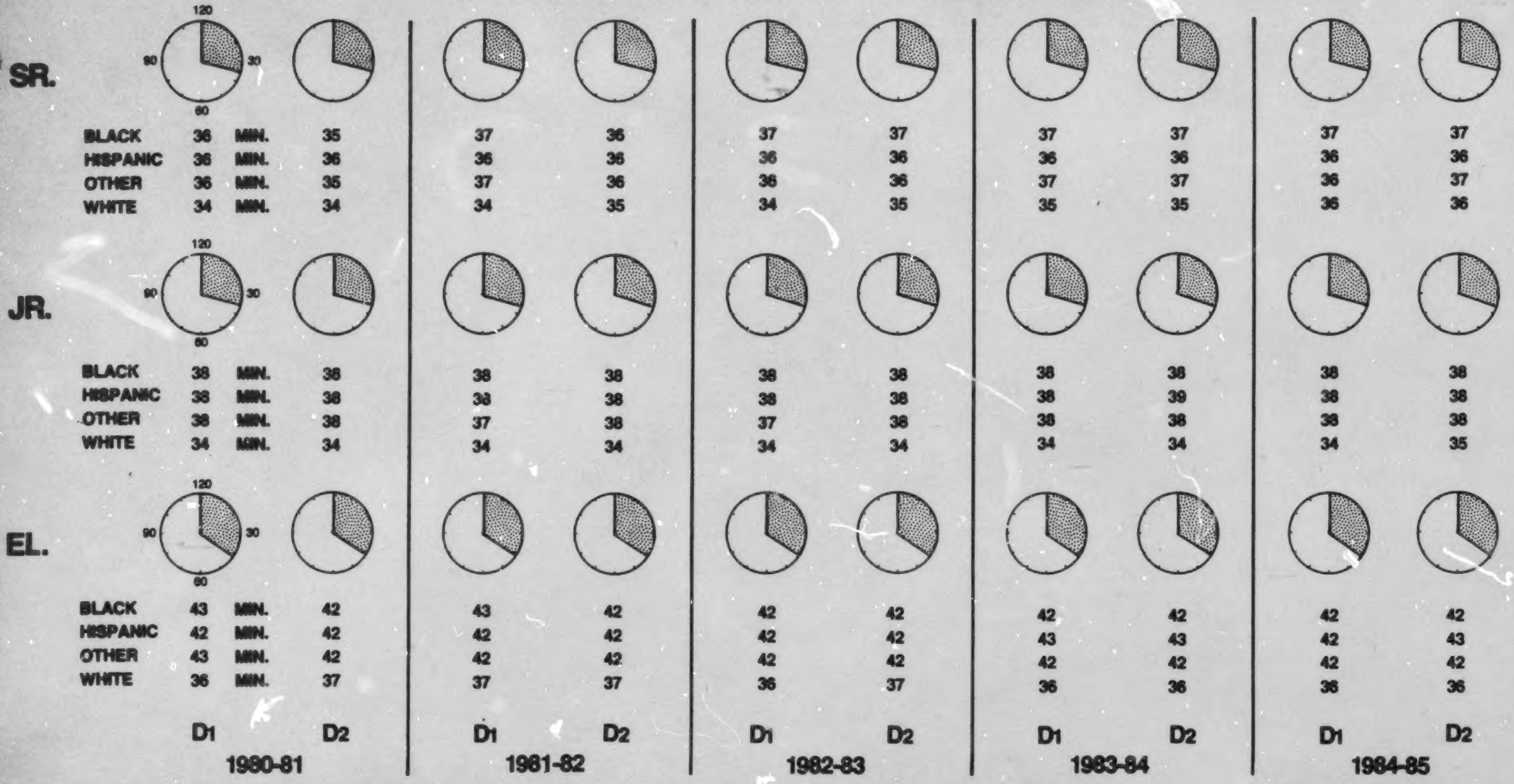
EL.

	1980-81 D1	1980-81 D2	1981-82 D1	1981-82 D2	1982-83 D1	1982-83 D2	1983-84 D1	1983-84 D2	1984-85 D1	1984-85 D2
BLACK	39 MIN.	40	41	41	43	43	43	44	44	45
HISPANIC	35 MIN.	37	35	38	36	38	37	38	37	38
OTHER	36 MIN.	42	36	42	36	42	36	38	36	38
WHITE	30 MIN.	38	30	37	30	37	29	31	29	31

CHART 51

VOLUNTARY/MANDATORY PLANS D_1 AND D_2

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

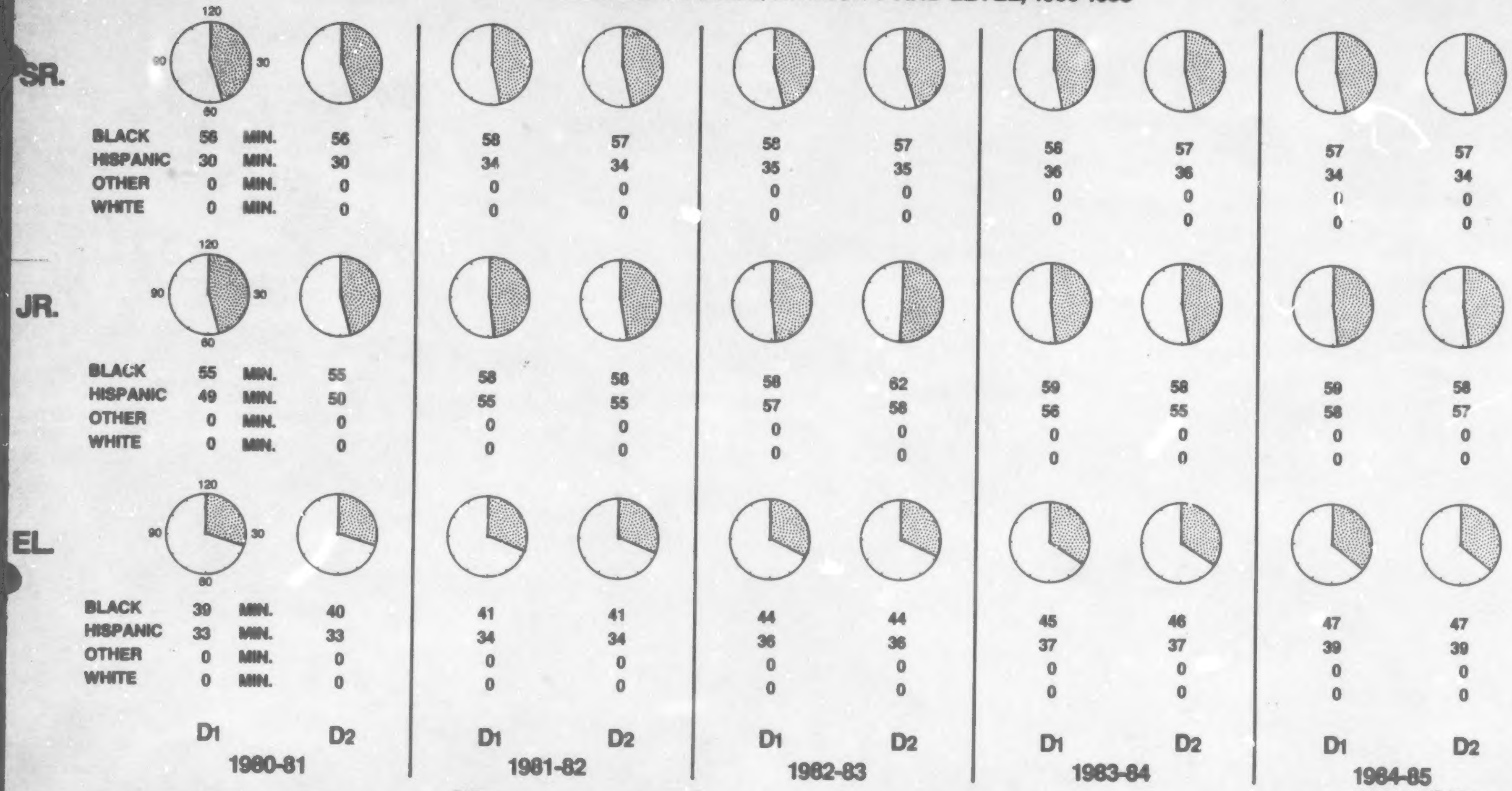


		1980-81			1981-82		1982-83		1983-84		1984-85	
		D_1		D_2	D_1	D_2	D_1	D_2	D_1	D_2	D_1	D_2
SR.	BLACK	36	MIN.	35	37	36	37	37	37	37	37	37
	HISPANIC	36	MIN.	36	36	36	36	36	36	36	36	36
	OTHER	36	MIN.	35	37	36	36	36	37	37	36	37
	WHITE	34	MIN.	34	34	35	34	35	35	35	36	36
JR.	BLACK	38	MIN.	38	38	38	38	38	38	38	38	38
	HISPANIC	38	MIN.	38	38	38	38	38	38	39	38	38
	OTHER	38	MIN.	38	37	38	37	38	38	38	38	38
	WHITE	34	MIN.	34	34	34	34	34	34	34	34	35
EL.	BLACK	43	MIN.	42	43	42	42	42	42	42	42	42
	HISPANIC	42	MIN.	42	42	42	42	42	43	43	42	43
	OTHER	43	MIN.	42	42	42	42	42	42	42	42	42
	WHITE	36	MIN.	37	37	37	36	37	36	36	36	36

CHART 52

VOLUNTARY/MANDATORY PLANS D1 AND D2

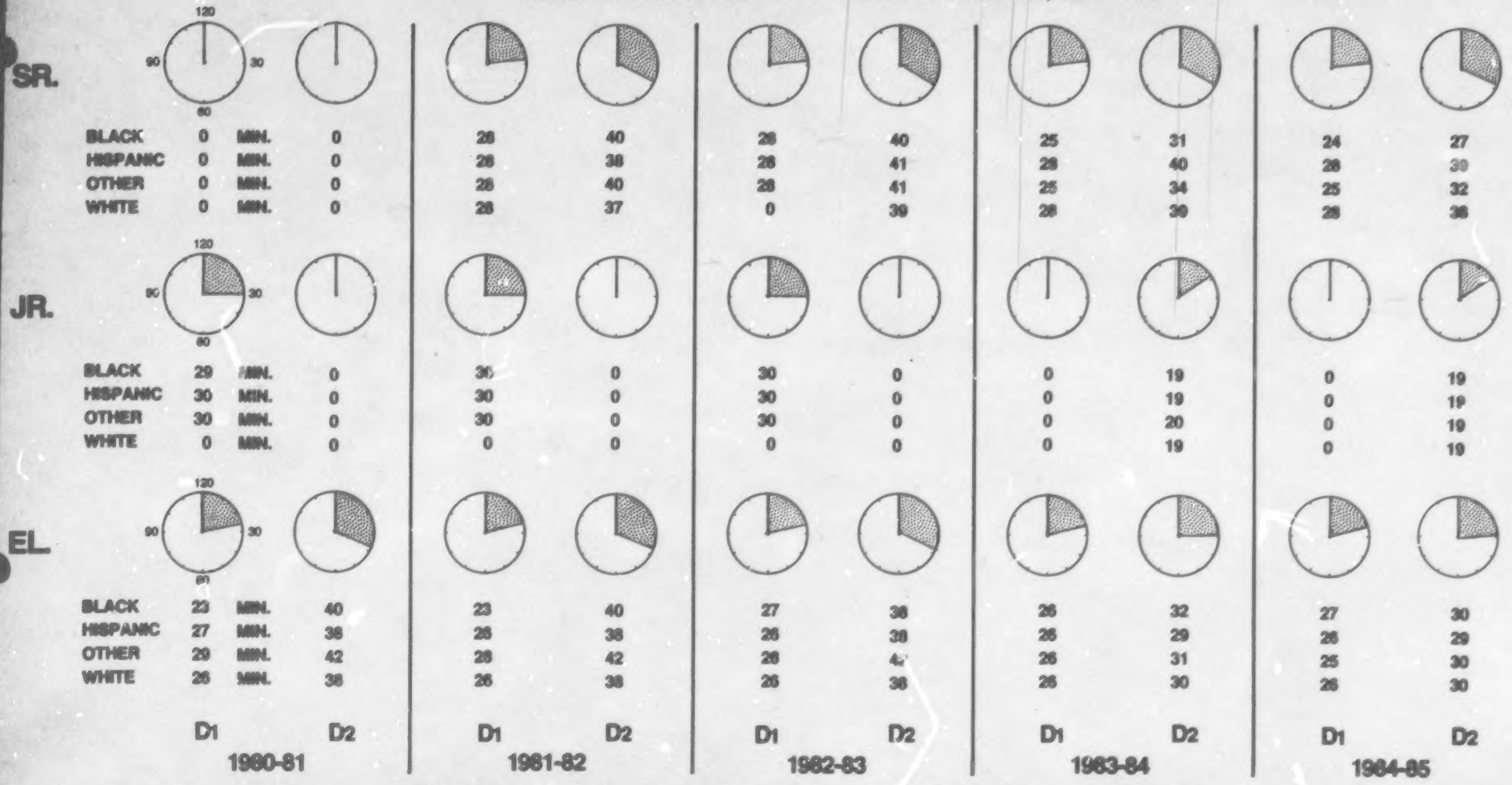
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED UNDER PWT PROGRAM BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 D1		1980-81 D2	1981-82 D1	1981-82 D2	1982-83 D1	1982-83 D2	1983-84 D1	1983-84 D2	1984-85 D1	1984-85 D2
SR.	BLACK	56	MIN.	56	58	57	58	57	56	57	57	57
	HISPANIC	30	MIN.	30	34	34	35	35	36	36	34	34
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
JR.	BLACK	55	MIN.	55	58	58	58	62	59	58	59	58
	HISPANIC	49	MIN.	50	55	55	57	58	56	55	58	57
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
EL.	BLACK	39	MIN.	40	41	41	44	44	45	46	47	47
	HISPANIC	33	MIN.	33	34	34	36	36	37	37	39	39
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0

CHART 53

VOLUNTARY/MANDATORY PLANS D1 AND D2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 D1		1980-81 D2	1981-82 D1	1981-82 D2	1982-83 D1	1982-83 D2	1983-84 D1	1983-84 D2	1984-85 D1	1984-85 D2
SR.	BLACK	0	MIN.	0	26	40	26	40	25	31	24	27
	HISPANIC	0	MIN.	0	26	38	26	41	28	40	26	39
	OTHER	0	MIN.	0	26	40	26	41	25	34	25	32
	WHITE	0	MIN.	0	26	37	0	39	26	39	28	36
JR.	BLACK	29	MIN.	0	30	0	30	0	0	19	0	19
	HISPANIC	30	MIN.	0	30	0	30	0	0	19	0	19
	OTHER	30	MIN.	0	30	0	30	0	0	20	0	19
	WHITE	0	MIN.	0	0	0	0	0	0	19	0	19
EL.	BLACK	23	MIN.	40	23	40	27	36	26	32	27	30
	HISPANIC	27	MIN.	38	26	38	26	38	26	29	26	29
	OTHER	29	MIN.	42	28	42	28	42	26	31	25	30
	WHITE	26	MIN.	36	26	36	26	36	26	30	26	30

Variations E1 and E2

Basic Ground Rules

Variations E1 and E2 reduce the effects on a school's beginning racial/ethnic balance (and, therefore, on its eligibility for assignment to a mandatory linkage) that can be exerted by pupil applications for space in voluntary desegregation program. Specifically, Plans E1 and E2 permit volunteers for Magnet attendance to make their applications, be assigned, and be accounted for in the beginning measurement of racial/ethnic balance, but they do not allow PWT participants this pre-mandatory assignment. Thus, each school's racial/ethnic situation is determined before PWT traffic is taken into account, and no school can be exempted from mandatory linkage because of PWT effects. PWT applications are then permitted after mandatory assignment to the degree that spaces remain in the desired schools that can be filled without pushing a school out of the "Desegregated" category.

This is the sole difference between Plans E1 and E2 and those labelled D1 and D2. All other rules, including the grade spread first introduced in D1 and D2, remain the same in this simulation.

Difference Between the Variations

Plans E1 and E2 differ from each other in only one respect:

- Plan E1 imposes a maximum travel time limitation for any mandatorily transported pupil of 30 minutes.
- Plan E2 imposes a maximum travel time limitation for any mandatorily transported pupil of 45 minutes.

Number of Segregated/Desegregated Schools

Chart 54 shows the numbers of schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. Since Magnet programs are counted (as they are in current District practice) as separate schools, the total number of schools rises and falls as Magnets are formed and closed.

In brief, as the Chart shows:

- In Plan E1 the number of Desegregated schools starts at 194 (or 29%) in 1980-81 and falls to 169 (or 26%) by 1984-85. The corresponding numbers for Plan E2 are 245 (or 36%) and 180 (or 27%).
- In Plan E1 the number of Segregated schools starts at 466 (or 70%) in 1980-81 and rises slightly to 489 (or 74%) by 1984-85. The corresponding numbers for Plan E2 are 418 (or 63%) and 472 (or 72%).
- In Plan E1, within the "Segregated" category, the number of RIWS declines from 67 to 20 by 1985, while RIMS increase from 399 to 469. The corresponding figures for Plan E2 are 25 to 15 in the case of RIWS, and 393 to 463 in the case of RIMS.

Overall, the broadest finding of the simulation is that, given the parameters stated herein, neither Plan will desegregate more than 36% of the schools in 1980-81, nor retain more than 27% of them in that category in 1984-85. In both instances the prospect is for a decline from the first year peak during the succeeding two years, a brisk upsurge in the fourth year -- following the second round of mandatory reassignments -- and a sharp falloff in the fifth year.

The simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be a substantial increase in the number of Desegregated schools. Plan E1 would raise the current number from 173 to 194, an increase of 12%. Plan E2, on the other hand, would increase the number to 245, a 42% enlargement. However, both

Plans would accomplish substantial additional desegregation of schools in all of the projected years as compared with the absence of any desegregation plan at all. Plan E1 would desegregate 124 more schools in 1980-81 and 106 more in 1984-85 than would be expected in the absence of a plan. Plan E2 would desegregate 175 more schools in 1980-81 and 117 more in 1984-85 than would demographic forces operating without intervention by a plan.

However, the difference between the two Plans -- the lower travel time ceiling in Plan E1 -- has important effects. The results of the two Plans describe congruent patterns through time -- falling then rising then falling again. Plan E2 always results in more Desegregated schools, but the margin over E1 steadily declines in the last three years. The difference in favor of Plan E2 is 46 Desegregated schools in 1981-82, 39 schools in in 1982-83, 19 schools in 1983-84, and 11 schools in 1984-85. As the number of Whites in the system dwindles, the 15-minute difference in allowed travel time makes less and less difference to the number of Desegregated schools achieved. The convergence is even more pronounced with respect to the evolution of RIWS and RIMS. By 1984-85 the RIWS totals for the two Plans are only five schools apart (though they start 42 apart). The RIMS projections stay very close to each other, steadily rising year by year throughout the projection period, starting and finishing only six schools apart. Put another way, the effects of the two Plans within the "Segregated" category of schools are virtually idential for RIMS and rapidly convergent in the case of RIWS.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by these two variations involve substantial pupil flight. And, since more schools are involved in mandatory transporation in one Plan than in the other, the flight estimates for the two differ. For Plan E1 the total 1984-85 student body is projected to be 545,000 pupils, of whom 118,000 (or 22%) would be Black, 296,000 (or 54%)

would be Hispanic, 49,000 (or 9%) would be Other Minorities, and 83,000 (or 15%) would be White. The total pupil population represents a loss of 51,000 (or 9%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 30% drop below the demographic projection.

Plan E2 is projected to produce a total pupil population of 543,000 in 1984-85, of whom 118,000 (or 22%) would be Black, 296,000 (or 55%) Hispanic, 49,000 (or 9%) Other Minorities, and 80,000 (or 15%) White. The loss from demographic expectations would be 54,000 pupils (or 9%) below demographic projections. Plan E2 would involve about 6% more flight than Plan E1.

Chart 55 depicts the numbers of pupils attending schools in each category under each Plan during the projection period. In brief, it shows that:

-- In Plan E1 the total number of pupils in Desegregated schools starts at 137,000 (or 26%) in 1980-81 and declines to 112,000 (or 21%) in 1984-85. The corresponding figures for Plan E2 are 160,000 (or 30%) and 119,000 (or 22%).

-- In Plan E1 the number of pupils in Segregated schools begins at 396,000 (or 74%) in 1980-81 and rises to 433,000 (or 79%) in 1984-85. The corresponding figures for Plan E2 are 348,000 (or 70%) and 424,000 (or 78%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 160,000 (or 30%), and that would be accomplished only in the first year. By 1984-85, this number is projected to shrink to the 112,000-119,000 range (or 21-22%). In both instances, the forecast is for slow decline in the first three years of the period, a very mild upsurge in the fourth, and then rapid -- and converging -- decline in the fifth.

However, the model suggests that the *immediate effect* of introduction of either Plan, as compared to actual conditions in 1979-80, would be the same order of percentage increase in the aggregate number of *pupils* as would be achieved in the number of Desegregated schools. Plan E1 would result in 19,000 (or 16%) more pupils in Desegregated schools in 1980-81 than are actually in such institutions in 1979-80, and Plan E2 would generate 42,000 (or 36%) more than the current level. The schools that are Desegregated by both Plans are projected to be in the same size range, on average, as those now Desegregated.

Both Plans E1 and E2 would effectuate much more desegregation of pupils than would have occurred in the absence of any plan. Plan E1 is forecast to put 73,000 more pupils in this situation in 1980-81 and 42,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan E2 and 96,000 in 1980-81 and 65,000 in 1984-85.

Looking across the full projection period, *the two Plans* again show the converging phenomenon already described with regard to schools. By 1984-85, the difference between the number of pupils in Desegregated schools in one Plan as against the other is only 7,000. Again, the model's suggestion is that 15 minutes' difference in travel ceiling becomes of relatively little significance by the end of the period, though it does matter importantly in the first two years. In 1984-85, under either Plan, no more than 22% of the LAUSD pupils would attend Desegregated schools. This would mean that the odds that a pupil would attend such a school would be a little better than one in five, compared to the one in ten that would be predicted on the basis of demographic factors alone. The odds that a White pupil would have this experience would be about one in ten in 1984-85 under either Plan, while the odds for a Minority pupil would be about one in nine.

Differential Effects on Grade Levels

Charts 56, 56A, 57, and 58 present the elementary, junior high school, and high school effects of the two Plans by racial/ethnic groups. In brief, they show that:

- Among elementary school pupils, sixth graders would make up the highest proportion (15-16%) in Desegregated schools in both Plans and in all years, while first graders would comprise the least (14% in both Plans), except in 1981-82 when second graders would be lowest.
- Among junior high school pupils the pattern is irregular. Ninth graders would lead the way with 34-35% in Plans E1 and E2 at the beginning and end of the period, while seventh graders trail by a percent or two in most years in both Plans.
- Among senior high school pupils, tenth graders would be the largest group (starting at 39% in both Plans and declining to 38%), while twelfth graders would be the smallest (27-29% in Plan E1 and 26-29% in Plan E2).
- Between 72% and 81% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 62% to 76%, and for senior high school enrollees 66% to 78%.

Overall, the simulation indicates that restricting the PWT option would not change the pattern of pupils in Desegregated schools by very much. The shares of pupils in such schools from each level would be almost precisely the same as in variations that do not prohibit pre-mandatory assignment of PWT pupils. This is 15-16% elementary, 33-35% junior high school, and 29-30% senior high school, with tenth grade the point where the share of any single grade reaches its peak. The Segregated share is also familiar: 72-81% of all elementary school pupils, 62-76% of all junior high schoolers, and 66-78% of all senior high enrollees in Segregated schools throughout the period. By 1984-85, pupils at all levels would be in the 76-81% range of Segregated schools.

Racial/Ethnic Mix of Schools

Charts 59, 60, and 61 present the racial/ethnic mix of, respectively, elementary, junior high, and senior high schools. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier. In brief, these Charts indicate that:

-- The number of elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two Plans in 1980-81 ranges from 57 (or 12% of all elementary schools) to 80 (or 17%). By 1984-85, this range changes to 8%-9%.

-- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 228 (or 49% of all elementary schools) to 244 (or 49%). By 1984-85, this range changes to 244 (or 49%).

-- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 10 (or 11% of all junior high schools) to 18 (or 19%). By 1984-85, this range changes to 9-11%.

-- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 47 (or 50% of all junior high schools) to 48 (still 50%). By 1984-85, this range changes to 64-65%.

- -- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 17 (or 17% of all high schools) to 20 (or 20%). By 1984-85, this range changes to 17%-18%.
- -- The number of senior high schools in the bands closest to "Segregated" in 1980-81 is 57 (or 58% of all senior high schools) in both Plans. By 1984-85, this changes to a range of 62-63%.
- -- The senior high schools begin the period most heavily segregated in both Plans, but are even with the elementary schools about midway through the five-year period.

Overall, the simulation illustrates the fact that both Plans result in all school levels having 62-65% of their institutions in the "most Segregated" bands by 1984-85, although they start the period at different points. The elementary schools begin with only 49% in these bands, the junior high schools with 47-48%, and the senior high schools 58%. Either Plan would then draw all of them into the common 62-65% range. Events on the "near Desegregated" side of the ledger are symmetrical in the other direction, with all levels having 8-18% in these bands in 1984-85. However, the senior high schools would have nearly twice the share of schools in these bands that is experienced by the other two levels in 1984-85.

Pairs/Clusters/Midsites

Charts 62 and 63 list the Pairs/Clusters/Midsites formed by the model under the restrictions of Plans E and E2, broken down by how long each set lasts in the face of demographic pressures. The complexities involved in forecasting the announcement and implementation of mandatory linkages between schools have been discussed in connection with the groupings generated by variations C1 and C2 (page 113). It is assumed here that the reader has read that discussion and understands the difference between an announced and an activated grouping. In brief the Charts show that:

-- Plan E1 would result in an announced total of 68 Pairs, eight Clusters, and four Midsites (of which 35 Pairs, seven Clusters, and all four Midsites would be activated) in 1980-81, changing to 66 Pairs, no Clusters, and nine Midsites (of which 52 Pairs, and eight Midsites would be activated) by 1984-85.

-- Under Plan E1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 68 Pairs, eight Clusters, and four Midsites would be announced in 1980, of which two Pairs, no Clusters, and no Midsites would last through 1985. Sixty-four new Pairs, no new Clusters, and nine new Midsites would be announced in 1983.

-- Plan E2 would result in an announced total of 119 Pairs, seven Clusters, and 14 Midsites (of which 71 Pairs and all announced Clusters and Midsites would be activated) in 1980-81, changing to 76 Pairs, no Clusters, and no Midsites (of which all but five Pairs would be activated) by 1984-85.

-- Under Plan E2, no current Pairs, Clusters, or Midsites would endure in future years. All 119 Pairs, seven Clusters, and 14 Midsites would be announced in 1980, of which one Pair, no Clusters, and no Midsites would last through 1985. Seventy-five new Pairs, no Clusters, and no Midsites would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by either Plan even for announcement purposes. Of the new matches made in 1980, only two Pairs would emerge from the 1983 reassignment under Plan E1, and just one would survive under Plan E2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, none -- or almost none -- of the resulting matches is any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of Desegregated schools, nearly every eligible school must be reassigned to a different grouping. Also, since both Plans fall off sharply in the number of schools that they desegregate in the fifth year of the period, (1984-85), it is clear that the new matches become less and less efficacious over time.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) is substantial in both Plans in the first assignment interval, although less so in the second. In Plan E1, they invalidate 23 of a total of 80 groupings (or 29%) in 1980-83, and nine (12%) in 1983-85. Under Plan E2, these factors invalidate 48 (or 34%) of 140 groupings in 1980-83, but only five of 76 (or 7%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan E1 would have 23 groupings (13 Pairs, five Clusters, and five Midsites -- or 50% of the activated groups) in this partially invalidated category during 1980-83, and nine groupings (all Pairs -- or 15% of the activated groups) in it in 1983-85. Plan E2 would have 26 groupings (16 Pairs, five Clusters, and five Midsites -- or 28% of all activated groups) partially invalidated in 1980-83, and 12 (all Pairs -- 16% of all activated groups) in that status during 1983-85.

Both Plans would encounter much less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 23-26 (28-50%) of all active groupings created under either Plan would not be transporting pupils in at least one year. In t second interval, 9-12 groups (or 15-16% of all activated groups) would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would be a very significant outcome of either Plan, particularly in 1980-83.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be a complete change in the groupings of schools that are employed this year. Plan E1 would result in an increase in the announced groupings, as compared with the current year, but the number activated (58% of those announced would be fully or partially invalidated during 1980-83) would be lower than the number in current use. Plan E2 would result in a large increase in the number of activated groupings.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/Midsiting of the 15-minute travel time allowance that divides them. The extra time results in well over twice as many activated groupings in Plan E2 as in Plan E1. And they are largely new groupings -- only 15 of the Pairs announced in 1980 and 17 of the ones announced in 1983 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, the assignments of pupils involved in mandatory transport would be quite different, depending on which Plan were chosen.

Finally, the Charts again show the greater utility of the Midsite device under the pressure of the travel time constraint. Clustering becomes inefficient within the 30-minute limit as the number of Whites in the pupils population falls because of demographic trends, but the use of Midsites becomes substantially more effective within the bounds imposed on Plan E1. Under E2 conditions, on the other hand, Clusters and Midsites disappear in the last two years of the period, and the number of announced Pairs falls substantially (119-76) as well. It is for this reason that the two Plans converge in their desegregation effects over the latter years of the period; Plan E2 is able to use most of the operating room provided it in the early years, and does not become more efficient later, while Plan E1, by moving to Midsiting, can largely maintain its desegregation momentum. Still of course, Plan E2 remains the more effective desegregator of both schools and pupils in all years of the projections. In the last year of the period, however, this difference is small.

Magnet Schools

Since the interplay of demographic forces with Magnet demand would produce changes in the Magnet list for each Plan every year, a simplified chart presentation is not possible. The aggregates projected may be summarized as follows:

-- Plan E1 would result in a total of 59 Magnets in 1980-81, of which 16 would be new and 43 would be from the current list. Of the current ones that would be preserved, 43 (or 73%) of all Magnets) would be Segregated by the definition used herein. Plan E2 would generate 62 total Magnets in that year, 19 new and 43 old, of which 43 (or 70% of all Magnets) would be Segregated.

-- In 1984-85, Plan E1 would yield a total of 57 Magnets, of which 43 would be Segregated. The corresponding numbers for Plan E2 would be 57 and 43 (or 73% of all Magnets).

-- Under Plan E1, 43 current Magnets would operate through the entire projection period, while 14 of those first opened in 1980-81 would survive the full five years. Under Plan E2, 42 current Magnets would last the full period, and 14 of the 1980-81 crop of 19 would last.

-- The number of pupils attending Magnets in 1980-81 under Plan E1 would be 11,577 (or 2% of all pupils). These pupils would be 21% Black, 51% Hispanic, 8% Other Minorities, and 20% White. Under Plan E2, the total number of pupils would be 12,388 (or 2% of all pupils), and the racial/ethnic breakdown would be 24% Black, 45 % Hispanic, 8% Other Minorities, and 22% White.

-- By 1984-85 the number of pupils attending Magnets under Plan E1 would fall to 11,072 (or 2% of all pupils). They would then be 20% Black, 53% Hispanic, 9% Other Minorities, and 19% White. Under Plan E2 the total number of pupils in 1984-85 would be 11,110 (or 2% of all pupils), of whom 20% would be Black, 52% Hispanic, 9% Other Minorities, and 19% White.

Overall, the simulation projects a narrow range of Magnet participation (11,577 to 12,388 pupils) generated by the two Plans, falling to a slightly lower level (11,072 to 11,110) at the end of the period. The important implication is that, having imposed these ground rules on Magnet formation, the number of pupils in Magnets would not increase noticeably even if successful Magnet application were the only option to mandatory assignment and transportation. There would be little turnover of Magnets under either Plan, since the effects of demographic conditions on the number of Whites would not affect a program that would involve only about 20% White particpation. Under both Plans about three quarters of all Magnets at both the beginning and the end of the period would be holdover, Segregated units. However, since the program would never engage more than 1-2% of the pupil population, it would have no noticeable effect on the desegregation picture.

The immediate effect of the installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of Magnets (from 55 to 59-62), but a virtual stasis in the number of pupils enrolled in them (about 12,000). However, these would not be the same 12,000 pupils that are now enrolled. Many more would be transported (see discussion below) and there would be a dramatic change in the racial/ethnic mix. Combined Minority participation would rise from the current 56% to 78%.

The differential effects of the two Plans are statistically indiscernible. They would be nearly identical in impact, the 15-minute difference in travel time having no effect on the aggregates.

Pupils Transported

Chart 64 shows the total number of pupils who would be transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

- From 40,000 (or 7% of all pupils) to 47,000 (or 9%) pupils would be transported in 1980-81. The corresponding range for 1984-85 would be 35,000 (or 7%) to 36,000 (or 7%).
- Most pupils transported in all years would be elementary pupils. They would be 57%-64% of those transported in 1980-81. In 1984-85, this range would narrow to 54-58%.
- The burden of transportation to non-neighborhood schools would fall predominantly upon Minority Pupils in both Plans in all years. In 1980-81, from 71-79%

of all pupils transported would be Minority, with Blacks making up 26-39%, Hispanics 36-39%, and Other Minorities 4-6%. In 1984-85, the travel share of Minorities would be 71-73%, and the individual share of Blacks would be 24-23%, of Hispanics 41-42%, and of Other Minorities 6-8%.

-- Of all Minority pupils in the system, 8% would be transported in 1980-81, falling to 6% in 1984-85. Blacks would move from a 10-12% range in 1980-81 to a 7-8% range in 1984-85. The corresponding numbers for Hispanics would be 6% to 8%; and for Other Minorities a stable 4%. The share of White pupils transported would start the period in the 6%-12% range, and rise to the 12%-13% range by 1984-85.

Overall, the simulation suggests that the narrowing of voluntary programs that exempt pupils from mandatory assignment would have some visible effects on the transportation figures. The Minority share of those transported, while still dominant, would be less so than in previous variations, and the White share would rise each year. The total transported would fall to 35-36,000 in 1984-85 under both Plans. This would represent a 26% drop over the period under Plan E2, but only a 13% fall under Plan E1. By 1984-85, about one White pupil in eight would be transported, as against one in 12 Blacks and Hispanics and one in 25 pupils of Other Minorities. The odds that any pupil of any race/ethnicity would be transported would be one in 14.

The immediate effect of adopting either Plan E1 or Plan E2 in 1980-81, as compared with actual conditions in 1979-80, would range from a small decrease (E1) to a substantial increase (E2) in the number transported. This number would change from the actual figure of 42,000 (or 8%) of all pupils) in 1979-80 to 40,000-47,000 (or 7%-9%) in 1980-81. Similarly, the number of pupils mandatorily transported would either decline somewhat (from 16,000 to 13,000 in Plan E1) or expand sharply (from 16,000 to 25,000 in Plan E2). Intrestingly, White pupils would not be involved in this swing; both Plans would mandatorily transport about 8,000 Whites in 1980-81. Both would also voluntarily transport about the same number of Whites in that (and other) years. The difference lies entirely in Minority pupils, most of whom would be mandatorily transported to Pairs/Clusters/Midsites.

The differential effects of the two Plans would be large in the early years of the period but very small by the end. Either way, 35-36,000 pupils would be transported in 1984-85, of which 16-17,000 (46-47%) would be mandatorily transported. This amounts to the actual amount of mandatory transportation that is actually being provided in 1979-80, in a context of about 17% less transportation overall.

Charts 65 and 66 break down the total pupils transported into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

- Plan E1 would result in transportation of 12,000 pupils (or 2% of all pupils) to Magnets in 1980-81, falling to 11,000 or 2%) in 1984-85. Under Plan E2 the 1980-81 figure would also be 12,000 (or 2% of all pupils) and the 1984-85 estimate also 11,000 (or2%).
- Under Plan E1 the 1980-81 total of pupils transported to Magnets would include 3,000 (or 25%) Blacks, 5,000 (or 44%) Hispanics, 1,000 (or 6%) Other Minorities, and 2,000 (or 22%) Whites. Plan E2 would result in 3,000 (or 24%) Black pupils being transported, 6,000 (or 45%) Hispanics, 1,000 (or 8%) Other Minorities, and 3,000 Whites (or 23%).

-- Under Plan E1 the 1984-85 total of pupils transported to Magnets would include 2,000 (or 18%) Blacks, 6,000 (or 55%) Hispanics, 1,000 (or 11%) Other Minorities, and 2,000 (or 18%) Whites. Plan E2 would include 2,000 (or 20%) Blacks, 6,000 (or 53%) Hispanics, 1,000 (or 8%) Other Minorities, and 2,000 (or 19%) Whites.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would shift from the 26-29% range in 1980-81 to 31% in 1984-85. The racial/ethnic mix would shift noticeably in the direction of Hispanics, with Black and White shares falling. By the end of the period, no more than 3% of any group would be transported to Magnets.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a large increase in the number of pupils transported to Magnets, despite the fact that the number of pupils enrolled in Magnets would remain essentially unchanged. The current total of 7,000 pupils transported would rise to 12,000, and change markedly in racial/ethnic mix. Combined Minorities, which now make up 56% of the total, would comprise 77-78% in 1980-81 under either Plan, while the White share would drop correspondingly. The District has no detailed racial/ethnic data on pupils now transported to Magnets, so that further comparisons are not possible.

The two Plans would have nearly identical effects on Magnet pupil transportation throughout the period.

Chart 66 presents the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupls in their home schools for simulation purposes. Therefore, these projection do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools on the West side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites; thus, all pupils projected to be transported in this program are Minority pupils.

In brief, the Chart shows that:

- Under Plan E1 the number of PWT pupils in 1980-81 would be 16,000 (or 4% of all Black and Hispanic pupils). The corresponding figure for Plan E2 would be 10,000 (or 3%).
- Of the Plan E1 total in 1980-81, 11,000 (or 71%) of PWT pupils would be Black and 5,000 (or 29%) would be Hispanic. The Plan E2 results would be 7,000 (or 73%) Blacks, and 3,000 (or 27%) Hispanics.
- In 1984-85 Plan E1 would place 8,000 pupils (or 2%) of all Black and Hispanic pupils) in PWT, while Plan E2 would also put 8,000 pupils (or 2%) in the program.

Overall, the number of PWT participants in both Plans is projected to drop substantially, from 10-16,000 pupils to 8,000 pupils over the period. This reflects the Plans' distinguishing characteristic -- prohibition of exemption from mandatory transportation through successful application for PWT status.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a drop in the number of pupils transported under this program. The current total is 18,000 (or 5% of all Black and Hispanic pupils), which would be lowered to 16,000 by Plan E1 and to 10,000 by Plan E2.

The difference between the two Plans would, obviously, be considerable -- but only in the early years of the period. Plan E2, where a much larger number of mandatory school linkages would pre-empt PWT slots, would effect a 56% cut in the program in the first year, while Plan E1 would result in only an 11% reduction

As the mandatory linkages in E2 are winnowed down by demography and flight, however, the Plans become almost interchangeable in their effects, ending in 1984-85 with programs involving about half as as many pupils as are now transported in the program. (See Chart 67).

Average One-Way Travel Times

Chart 68 presents the average one-way travel times experienced by all pupils transported under the all-voluntary Plans. In brief, it shows that:

- Plan E1 would result in 1980-81 in average travel times of 35 minutes for elementary school pupils, 46 minutes for junior high pupils, and 49 for high school pupils. The corresponding figures for Plan E2 are 39 minutes, 43 minutes, and 50 minutes.
- The 1980-81 Plan E1 figures would break down to an average of 51 minutes for all Black pupils, 37 minutes for all Hispanics, 33 minutes for Other Minorities, and 28 minutes for Whites. The Plan E2 figures for the same year would break down to an average of 50 minutes for all Black pupils, 39 minutes for all Hispanics, 40 minutes for Other Minorities, and 37 minutes for Whites.
- In 1984-85, Plan E1 would generate average travel times of 35 minutes for elementary school pupils, 40 minutes for junior high pupils, and 40 minutes for senior high pupils. The corresponding figures for Plan E2 are 36 minutes, 44 minutes, and 39 minutes.
- The 1984-85 Plan E1 figures would break down to an average of 50 minutes for all Black pupils, 36 minutes for all Hispanics, 33 minutes for Other Minorities, and 28 minutes

for Whites. The corresponding numbers for Plan E2 would be 48 minutes for Blacks, 38 minutes for Hispanics, 35 minutes for Other Minorities, and 30 minutes for Whites.

Overall, the two Plans would both yield progressively shorter average travel times over the period, moving from an all-transported-pupil average of 40-41 minutes in 1980-81 to 37-38 minutes in 1984-85. The average weight of the travel time burden would start and remain heavier in the higher levels of the system. The gradual reduction reflects the steadily lessening numbers of mandatory linkages that would be in active operation in each succeeding year, as demography altered the pupil populations. With respect to racial/ethnic groups, Blacks would remain the highest average grouping, while the averages for Hispanics would be somewhat lower than in other variations. Whites would continue to have the lowest averages. Once again, the fact of the lower travel time limit in Plan E1 would not be reflected in the overall averages in any simple way, except for the shaving of 1-4 minutes from elementary school averages.

The differences between the two Plans would be considerable in some cases in the early years, however. In 1980-81 Plan E2 would involve 32% longer averages for Whites, and 28% longer times for Other Minorities, for example. By 1984-85, when the differences between the Plans in terms of the number of activated mandatory linkages would be small, these margins (and all others) virtually disappear.

Chart 69 projects the Magnet component of average travel times, while Chart 70 does the same for the PWT component. Chart 71 shows the projection for mandatorily transported pupils. They are self-explanatory.

Summary of Quantifiable Findings

	Plan E1	Plan E2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	-46,000 (or 8%)	-71,000 (or 12%)
Projected total	533,000	508,000
1984-85		
Expected	597,000	597,000
Flight	-51,000 (or 9%)	-54,000 (or 9%)
Projected total	545,000	543,000
Desegregated Schools		
1980-81	194 (or 29%)	245 (or 36%)
1984-85	169 (or 25%)	180 (or 27%)
Segregated Schools		
1980-81		
RIWS	67	25
RIMS	399	393
Total	466 (or 71%)	418 (or 63%)
1984-85		
RIWS	20	15
RIMS	469	463
Total	489 (or 75%)	478 (or 72%)
Desegregated Pupils		
1980-81	137,000 (or 26%)	160,000 (or 30%)
1984-85	112,000 (or 21%)	119,000 (or 22%)
Segregated Pupils		
1980-81	396,000 (or 74%)	348,000 (or 70%)
1984-85	433,000 (or 79%)	424,000 (or 78%)

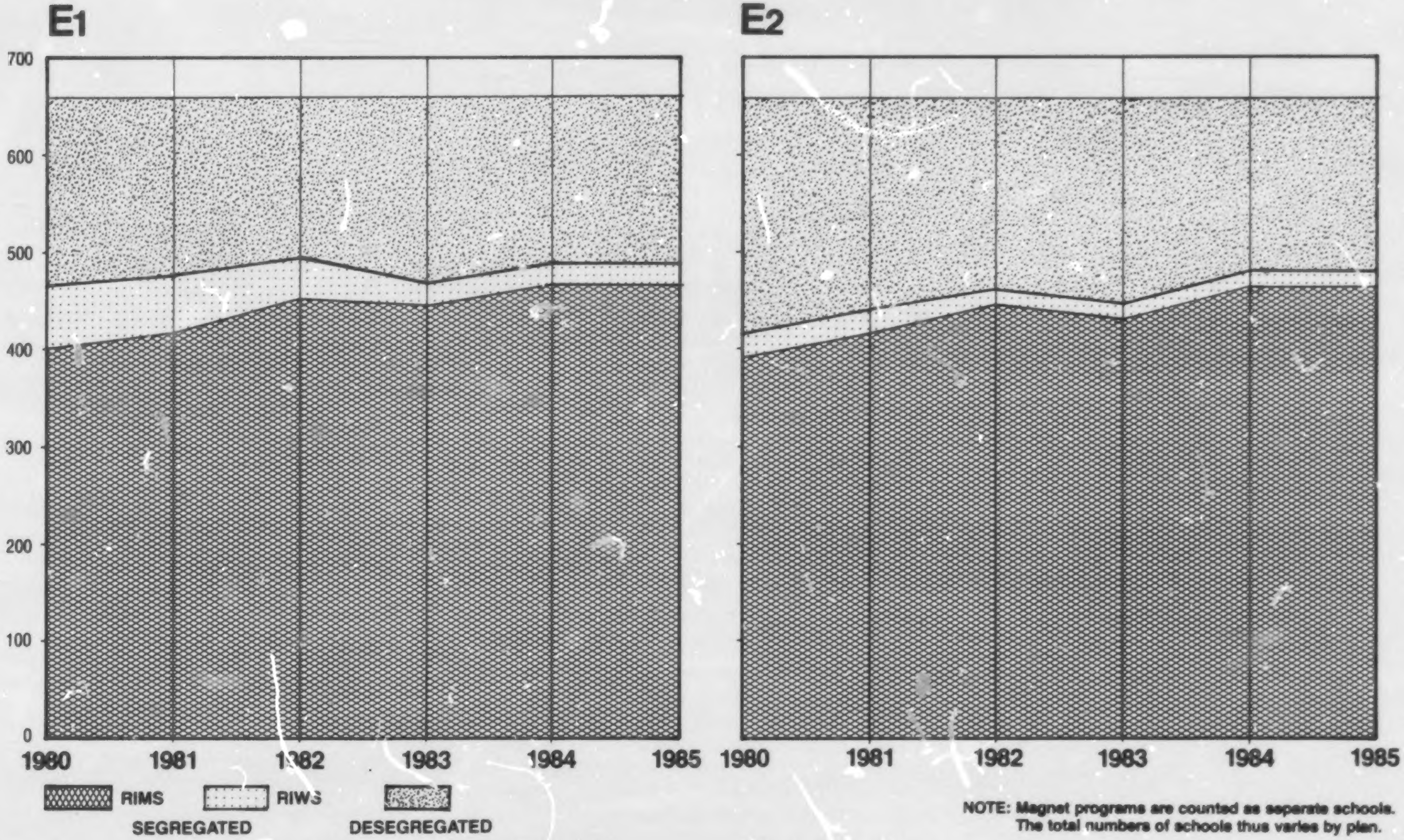
	Plan E1	Plan E2
Magnet Schools		
1980-81	59	62
1984-85	57	57
Magnet Pupils		
1980-81		
Desegregated	3,137 (or 27%)	3,676 (or 30%)
Segregated	8,440 (or 73%)	8,712 (or 70%)
Total	11,577	12,388
1984-85		
Desegregated	2,492 (or 22%)	2,456 (or 22%)
Segregated	8,580 (or 78%)	8,654 (or 78%)
Total	11,072	11,110
PWT Pupils		
1980-81		
Black	11,000 (or 71%)	7,000 (or 73%)
Hispanic	5,000 (or 29%)	3,000 (or 27%)
Total	16,000	10,000
1984-85		
Black	5,000 (or 64%)	5,000 (or 57%)
Hispanic	3,000 (or 36%)	3,000 (or 43%)
Total	8,000	8,000
Total Pupils Transported		
1980-81		
Voluntary	27,000 (or 66%)	22,000 (or 47%)
Mandatory	13,000 (or 34%)	25,000 (or 53%)
Total	40,000	47,000
1984-85		
Voluntary	19,000 (or 54%)	17,000 (or 53%)
Mandatory	16,000 (or 46%)	19,000 (or 47%)
Total	35,000	36,000

	Plan E1	Plan E2
Average Travel Times		
1980-81		
Overall	40 minutes	41 minutes
Black	51	50
Hispanic	37	39
Other Minority	33	40
White	28	37
1984-85		
Overall	37	38
Black	50	48
Hispanic	36	38
Other Minority	33	35
White	28	30

CHARTS FOR VARIATIONS E1 AND E2

CHART 54

VOLUNTARY/MANDATORY PLANS E_1 AND E_2
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985



NOTE: Magnet programs are counted as separate schools.
The total numbers of schools thus varies by plan.

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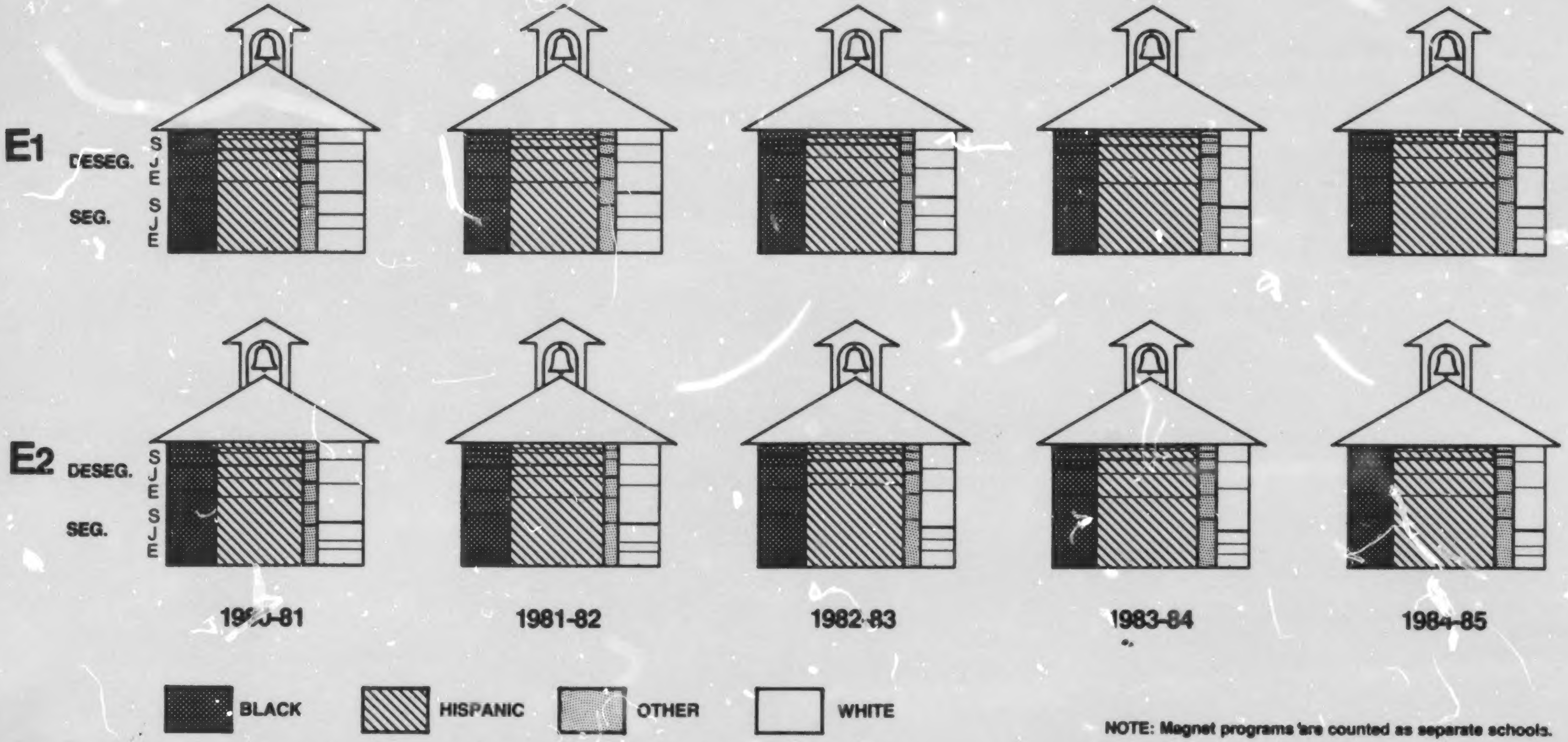
CHART 55

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

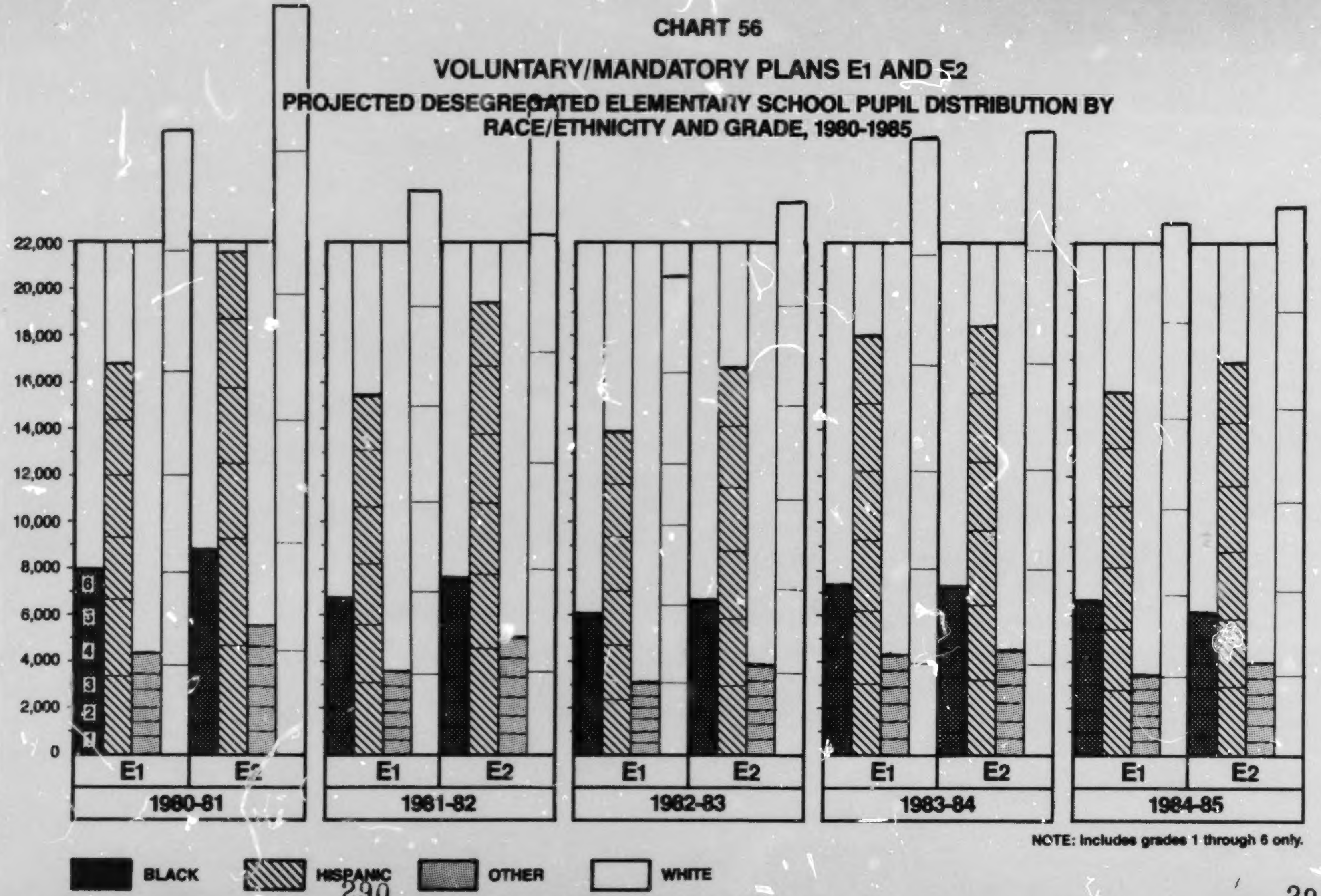


NOTE: Magnet programs are counted as separate schools.

CHART 56

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

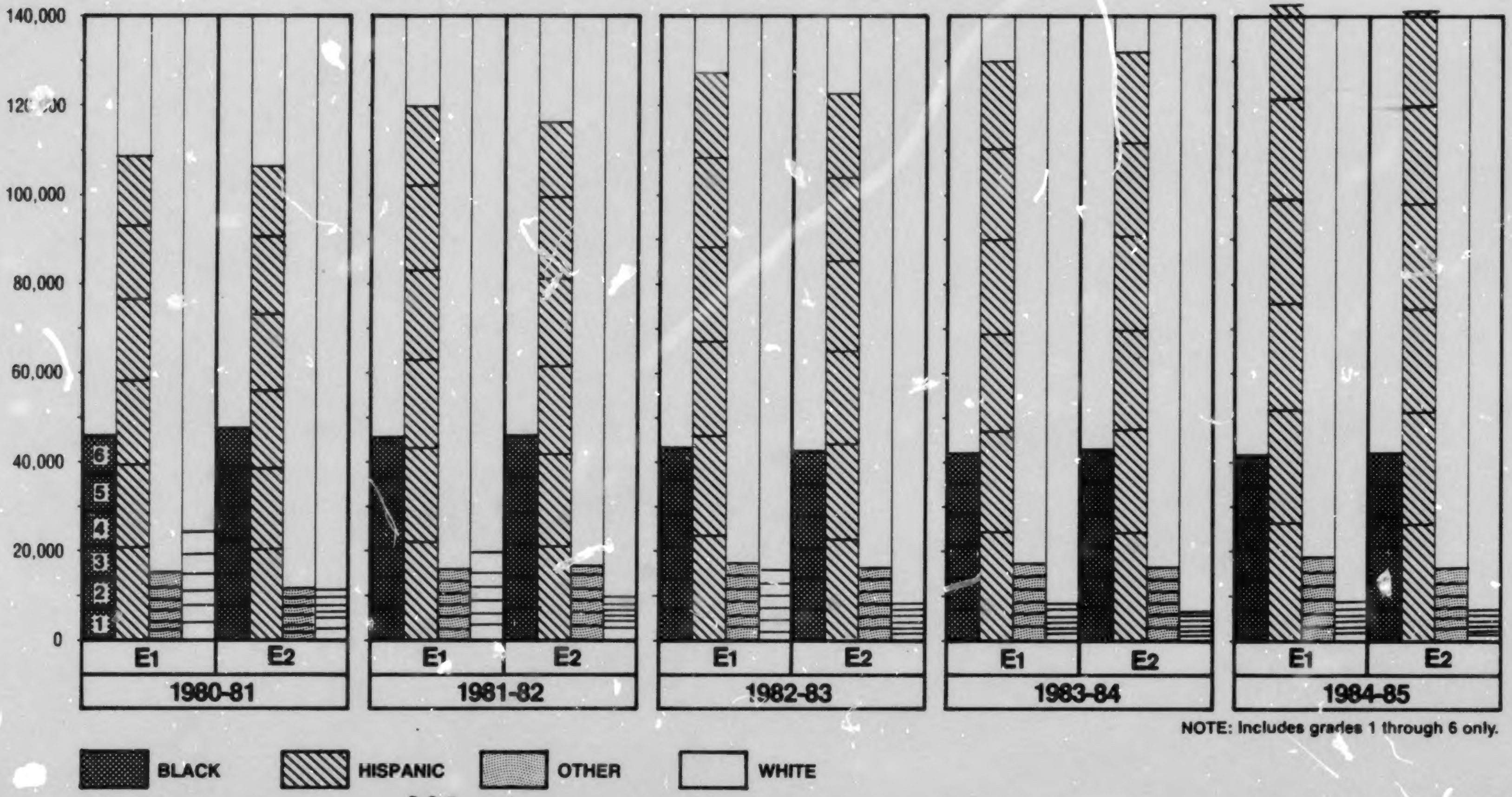


NOTE: Includes grades 1 through 6 only.

CHART 56A

VOLUNTARY/MANDATORY PLANS E_1 AND E_2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



NOTE: Includes grades 1 through 6 only.

CHART 57

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

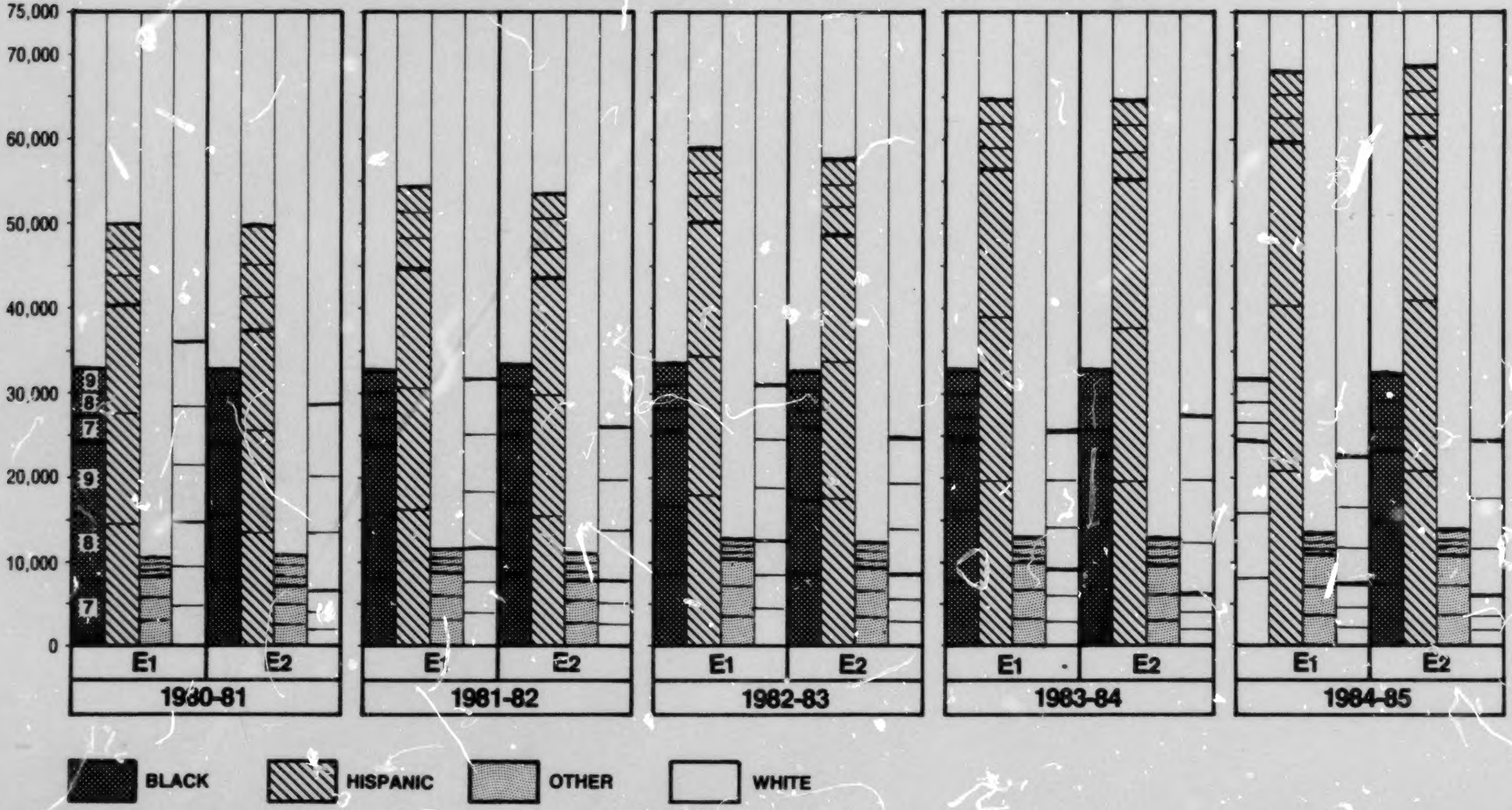


CHART 58

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985

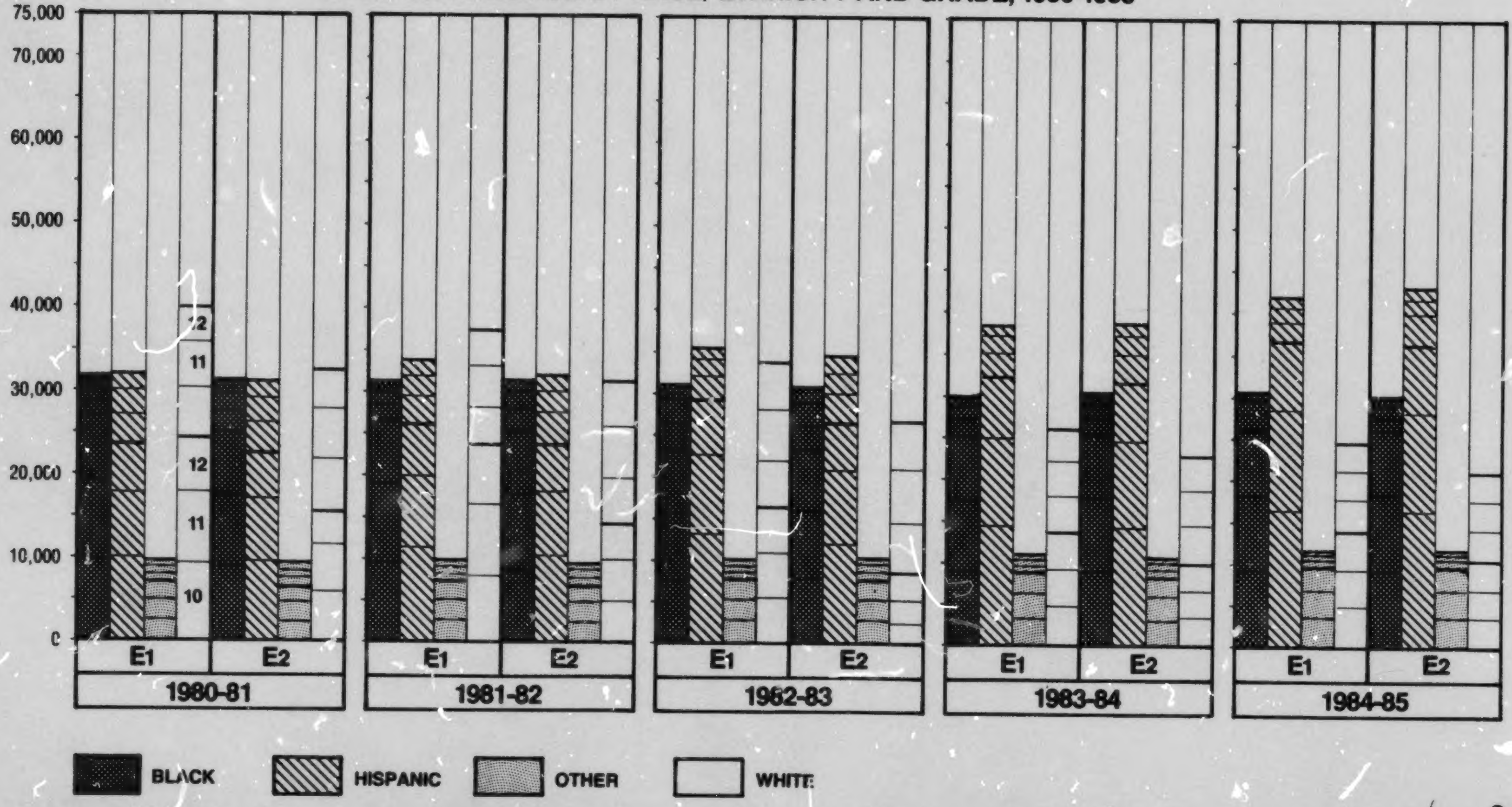


CHART 59

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	E1	E2	E1	E2	E1	E2	E1	E2	E1	E2
1980-81	9	0	26	1	144	183	54	57	235	228
1981-82	7	0	22	1	130	167	47	49	260	252
1982-83	7	0	11	1	119	139	50	60	279	267
1983-84	1	0	3	3	144	155	38	38	280	270
1984-85	0	0	3	1	127	135	36	41	300	289

NOTE: Magnet programs are counted as separate schools.

CHART 60

VOLUNTARY/MANDATORY PLANS E1 AND E2
PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

SCHOOL YEAR	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
	E1	E2	E1	E2	E1	E2	E1	E2	E1	E2
1980-81	0	0	5	0	29	38	15	10	47	48
1981-82	0	0	3	0	27	31	14	12	50	52
1982-83	0	0	3	0	23	27	14	12	54	56
1983-84	0	0	2	0	26	29	8	9	58	56
1984-85	0	0	1	0	23	26	9	8	61	60

NOTE: Magnet programs are counted as separate schools.

CHART 61

VOLUNTARY/MANDATORY PLANS E1 AND E2
PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	E1	E2	E1	E2	E1	E2	E1	E2	E1	E2
1980-81	13	12	14	12	21	24	6	5	44	45
1981-82	13	12	14	10	19	24	7	5	45	47
1982-83	12	11	9	6	22	27	6	6	49	47
1983-84	10	10	6	4	22	27	10	10	50	47
1984-85	11	10	5	4	19	19	12	14	51	51

NOTE: Magnet programs are counted as separate schools.

CHART 62

VOLUNTARY/MANDATORY PLAN E1
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Apperson - Brainard
Frost JHS - Maclay JHS

1980-83 ONLY

Pairs:

Allesandro - Toluca Lake
*Ann - Cheremoya
*Bandini - 7th Street
*Bassett - Noble
*Beachy - Plummer
Beckford - Vaughn
*Bellagio - Virginia
Braddock - Pacific Palisades
Brentwood Science - Broadway
*Broad Avenue - South Shores
*Brockton - Kenter Canyon
Saturn - Warner
Cabrillo - Leland
*Camellia - Chase
*Canoga Park - Hart
Canyon - Richland
Caroldale - Crestwood
Carpenter - Santa Monica
Carthay Center - Rosewood
*Castle Heights - Queen Anne
Castlebay Lane - Victory
*Chapman - Osage
Charnock - Fairburn
Clifford - Wonderland
*Cohasset - Haddon
Colfax - Delevan
*Crescent Heights - Westwood
*Dahlia Heights - Yorkdale
Dayton - Rio Vista
Dixie Canyon - Ramona
*Dyer - Tulsa
*El Dorado - Herrick
*Eshelman - Normont
*Fernangeles - Gledhill
*15th Street - Taper
*59th Street - Kentwood
Filmore - Vintage
Fries - Lomita Fund Center
Glenwood - Mt. View
*Grant - Saticoy
Area 7 Alternative - Mt. Washington
*Kittridge - Van Nuys
Knollwood - Osceola
Lanai - Sterry
Lankershim - Monlux
*Loyola Village - Paseo Del Rey Fund
Marquez - Westminster
*Mar Vista - Palms
Montague - Prairie
Nestle - Sylvan Park
Anchorage - Short
*Parthenia - Vena
Playa Del Rey - Westport Heights
*Point Fermin - 232nd Place
Riverside - Van Ness
Roscoe - Sunland
Roscomare - Shenandoah
Selma - Sherman Oaks
*3rd Street - Wilshire Crest
*Emerson JHS - Webster JHS
*Le Conte JHS - Reed JHS
Mt. Gleason JHS - Pacoima JHS
*Revere JHS - Mark Twain JHS
*Hamilton SHS - University SHS
*Hollywood SHS - No. Hollywood SHS
*Kennedy SHS - San Fernando SHS

Clusters:

Pacoima - Anatola - Balboa
Morningside - Andasol - Darby
Telfair - Gault - Van Gogh
San Fernando - Germain - Mayall
Sharp - Dearborn - Kester
O'Melveny - Granada - Lorne
Fenton - El Oro - Pinewood
*San Fernando JHS - Northridge JHS - Porter JHS

Midsites:

Coldwater Canyon - Alexandria - Lemay
Burbank - Emelita - Lockwood
Oxnard - Hesby - Rosemont
Millikan JHS - De Portola JHS - Virgil JHS

1983-85 ONLY

Pairs:

*Anatola - Parthenia
Andasol - Osceola
Arminta - Paririe
Balboa - Harding
Beachy - Germain
Beckford - Dyer
Bertrand - Kittridge
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calvert - Tulsa
Canfield - Warner
*Cantara - Fullbright
Canterbury - Topeka Drive
Canyon - Mar Vista
Carpenter - Gardner
Castlebay Lane - Hubbard
Collier - Van Nuys
Darby - Gridley
Dearborn - Herrick
*Devonshire - Rinaldi
Dixie Canyon - Los Feliz
El Dorado - Knollwood
El Oro - Stonehurst
Emelita - Vena
*Enadia - Highlander
Encino - Sylvan Park
*Erwin - Oxnard
Eshelman - Lomita Fund Center
Fair - Sunland
Filmore - Valley Alternative
Garden Grove - Pacoima
Glenwood - Pinewood

Hancock Park - Rosewood
Hart - Nevada
*Haskell - Superior
Hazeltine - Vanalden
Hesby - Valley View
Kenter Canyon - Marquez
Lanai - Richland
*Langdon - Melvin
Lankershim - Vintage
Laurel - Roscomare
Leland - South Shores
Lemay - Saticoy
Limerick - Noble
Melrose - Wonderland
*Mt. View - Plainview
Napa - Sunny Brae
*Newcastle - Ranchito
Anchorage - Coeur D'Alene
*Oso - Plummer
Riverside - Selma
Sylmar - Van Gogh
Columbus JHS - Northridge JHS
De Portola JHS - Van Nuys JHS
*Fulton JHS - Sequoia JHS
*Henry JHS - Porter JHS
Lawrence JHS - San Fernando JHS
Mt. Gleason JHS - Sun Valley JHS
*Nobel JHS - Sepulveda JHS
*Brimingham SHS - Van Nuys SHS
Francis Poly SHS - Verdugo Hills SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Hollywood SHS

Midsites:

Lorne - Capistrano - Sharp
Granada - Chatsworth - Morningside
Gledhill - Fenton - Winnetka
Kester - Grant - Serrania
Chandler - Nestle - Santa Monica
Bassett - Tarzana - Vaughn
Cohasset - Victory - Wilbur
Millikan JHS - Hughes JHS - Le Conte JHS
*Kennedy SHS - Chatsworth SHS - No. Hollywood SHS

* means grouping would never be activated during projection period.

CHART 63

VOLUNTARY/MANDATORY PLAN E2
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Darby - Filmore

1980-83 ONLY

Pairs:

Albion - Dixie Canyon
*Allesandro - Tulsa
*Ambler - Paseo Del Rey Fund
Anatola - Brainard
*Ann - Chase
Annandale - Kester
Apperson - Sierra Vista
Atwater - Vintage
Balboa - Camellia
*Bandini - 7th Street
*Bassett - Dorris
*Beachy - Calahan
Beckford - Micheltorena
*Bellagio - 32nd Street
Bertrand - Van Nuys
*Blythe - Lockwood
*Bonita - Westport Heights
Braddock - Lanai
Brentwood Science - Broadway
*Broad Avenue - Point Fermin

* Brockton - Kenter Canyon
Buchanan - Riverside
Saturn - Nestle
* Bushnell - Cheremoya
Cabrillo - Leland
Cahuenga - Wilbur
* Canoga Park - hart
Canyon - Loyola Village
Capistrano - Noble
* Caroldale - South Shores
Carpenter - Soto
Carthay Center - Rosewood
* Castle Heights - 42nd Street
Castlebay Lane - Ramona
* Chapman - Osage
* Charnock - Oakdale Avenue
* Chatsworth - Montague
* Cimarron - Westwood
* Clifford - Cohasset
Colfax - Rockdale
Coliseum - Encino
Collier - Crescent Heights
Collins - Selma
Crestwood - 232nd Place
* Dahlia Heights - Tweedy
Dayton - Prairie
Dearborn - Dyer
Delevan - Knollwood
Dolores - Fairburn
* El Dorado - Herrick
El Oro - Osceola
* Elysian - Rhoda
Emelita - Virginia
* Eshelman - Normont
Fenton - Nevada
Fernangeles - Topeka Drive
* 15th Street - Taper

59th Street - Sherman Oaks
Fletcher - Toluca Lake
Fries - Lomita Fund Center
Fullbright - Sterry
Garvanza - Pinewood
Gault - Playa Del Rey
Germain - Vaughn
* Gledhill - Sylvan Park
Glen Alta - Sunland
Glenfeliz - Wonderland
Glenwood - Lorne
Grant - Serrania
Area 7 Alternative - Ritter
Hesby - Yorkdale
* Kentwood - 186th Street
* Kittridge - Van Ness
* Lankershim - Shirley
* Latona - Saticoy
Lemay - Shenandoah
Limerick - O'Melveny
Marquez - Queen Anne
* Mar Vista - Vernon
Mayall - Roscoe
Mayberry - Vanalden
Monlux - Mt. Washington
Mt. View - San Pascual
Multnomah - Rio Vista
Newcastle - Rosemone
Anchorage - Van Deene
Pacific Palisades - Short
Palms - Valley Alternative
* Parthenia - Vena
* Plummer - Toland Way
* Richland - Tarzana
Roscomare - Solano
Santa Monica - Sunny Brae
* 3rd Street - Wilshire Crest

Topanga - Westminster
Van Gogh - Victory
Vine - Warner
Bancroft JHS - Frost JHS
Burbank JHS - Mt. Gleason JHS
*Carnegie JHS - Emerson JHS
Columbus JHS - San Fernando JHS
De Portola JHS - Marina Del Rey JHS
*Henry JHS - Le Conte JHS
*Irving JHS - Reed JHS
Lawrence JHS - Maclay JHS
*Mt. Vernon JHS - Revere JHS
*Nobel JHS - Pacoima JHS
Palms JHS - Sequoia JHS
*Porter JHS - Mark Twain JHS
*Sutter JHS - Webster JHS
*Birmingham SHS - Fairfax SHS
*Carson SHS - University SHS
Franklin SHS - Verdugo Hills SHS
Grant SHS - Lincoln SHS
*Hamilton SHS - Palisades SHS
*Hollywood SHS - No. Hollywood SHS
*Kennedy SHS - San Fernando SHS
*Marshall SHS - Monroe SHS

Clusters:

Pacoima - Calabash - Reseda
Telfair - Andasol - Hamlin
Alexandria - Garden Grove - Melvin
Haddon - Devonshire - Oso

Morningside - Granada - Winnetka
San Fernando - Superior - Woodlake
Sharp - Calvert - Woodland Hills

Midsites:

Burbank - Cortez - Platt Ranch
Valerio - Enedia - Hobart
Hazeltine - 1st Street - Highlander
Chandler - Haynes - Union
Langdon - Hoover - Justice
Erwin - Lockhurst - Utah
Lassen - Logan - Pomelo

Liggett - Loreto - Welby
Millikan JHS - Adams JHS - Hughes JHS
Mulholland JHS - Hale JHS - Pastuer JHS
Sepulveda JHS - King JHS - Parkman JHS
Fulton JHS - Northridge JHS - Virgil JHS
Van Nuys SHS - Dorsey SHS - Reseda SHS
Francis Poly SHS - Granada Hills SHS - Los Angeles SHS

1983-85 ONLY

Pairs:

Anatola - Langdon
Andasol - Haskell
Apperson - Rockdale
Arminta - Vintage
Balboa - Gridley
Beachy - Topeka Drive
Beckford - Harding
Beethoven - Marquez
Brainard - Sunland
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calabash - Lankershim
Calahan - Melvin
Calvert - Rinaldi
Canfield - Warner
*Cantara - Fullbright
Canterbury - Emelita
Canyon - Kenter Canyon
Capistrano - Ranchito
Carpenter - Fair
Castlebay Lane - Dyer
Charnock - Nestle
Chatsworth - Vaughn
Colver - Hesby
Collier - Van Nuys
Collins - Hamlin
Dayton - Wilbur
Dearborn - Stonehurst
Dixie Canyon - Los Feliz
El Dorado - Knollwood
El Oro - Herrick
*Enadia - Highlander
Encino - Richland
*Erwin - Roscoe
Eshelman - Lomita Fund Center
Garden Grove - Parthenia
Germain - Sylmar
Glenwood - Pinewood
Grand View - Vanalden
Hancock Park - Roscomare
Hart - Nevada

Haynes - Justice
Hazeltine - Valley Alternative
Kittridge - Woodland Hills
Lanai - Palms
Laurel - Wonderland
Leland - South Shores
Lemay - Saticoy
Limerick - Vena
Mar Vista - Anchorage
Melrose - Rosewood
*Mt. View - Plainview
Napa - Sunny Brae
Osceola - Van Gogh
Oxnard - Riverside
Platt Ranch - Plummer
Pomelo - Reseda
Prairie - Tulsa
Coeur D'Alene - Topanga
Selma - Serrania
Valley View - Welby
De Portola JHS - Van Nuys JHS
Frost JHS - Porter JHS
Hale JHS - Sutter JHS
Lawrence JHS - Sepulveda JHS
Mt. Gleason JHS - Sun Valley JHS
Northridge JHS - Parkman JHS
*Canoga Park SHS - Monroe SHS
Chatsworth SHS - Francis Poly SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Van Nuys SHS
Hamilton SHS - Reseda SHS

Hollywood SHS - Taft SHS
No. Hollywood SHS - Verdugo Hills SHS

* means grouping would never be activated during projection period.

CHART 64

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

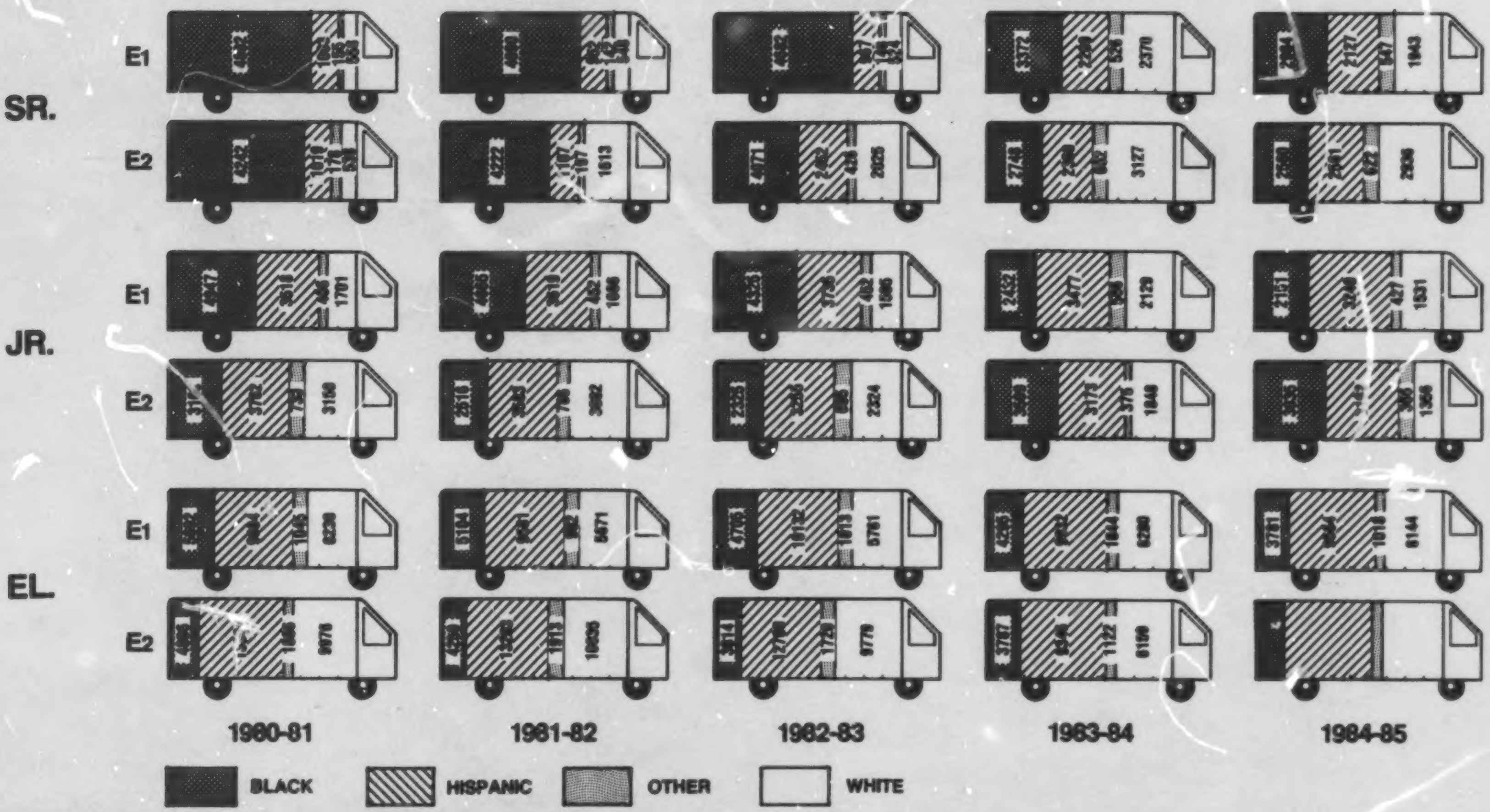


CHART 65

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

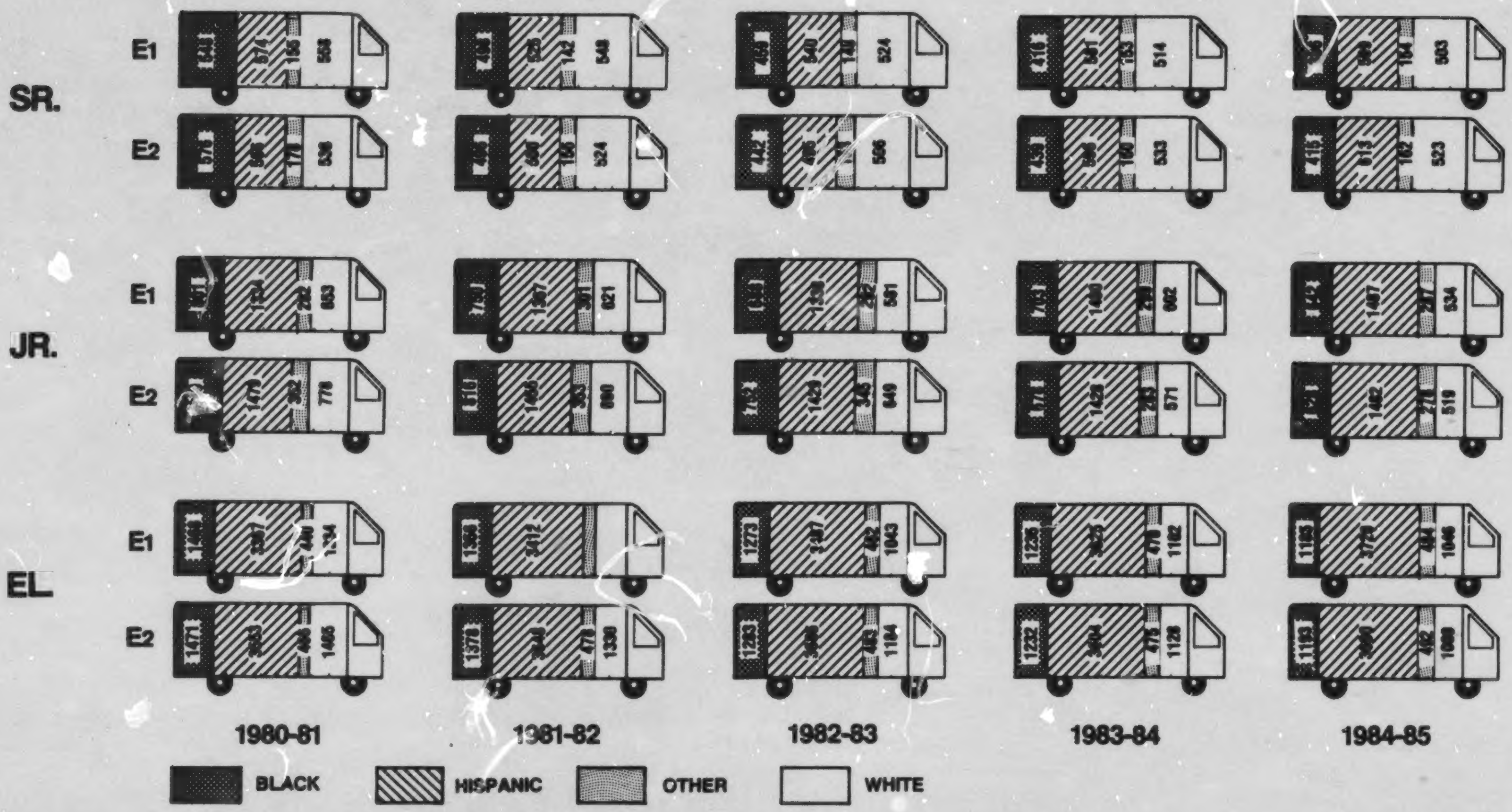


CHART 66

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED UNDER PWT PROGRAM, BY RACE/ETHNICITY AND LEVEL, 1980-1985

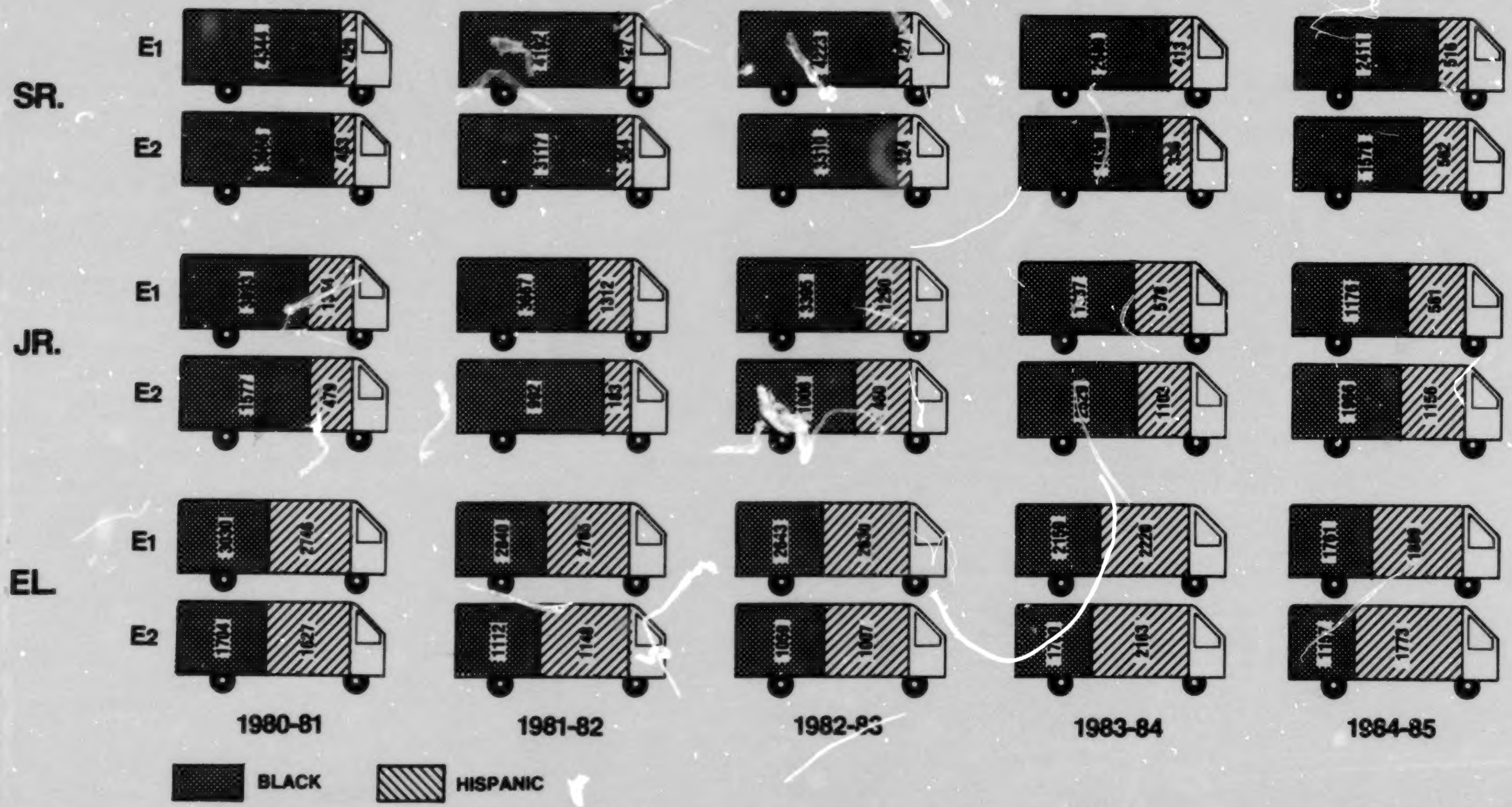


CHART 67

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

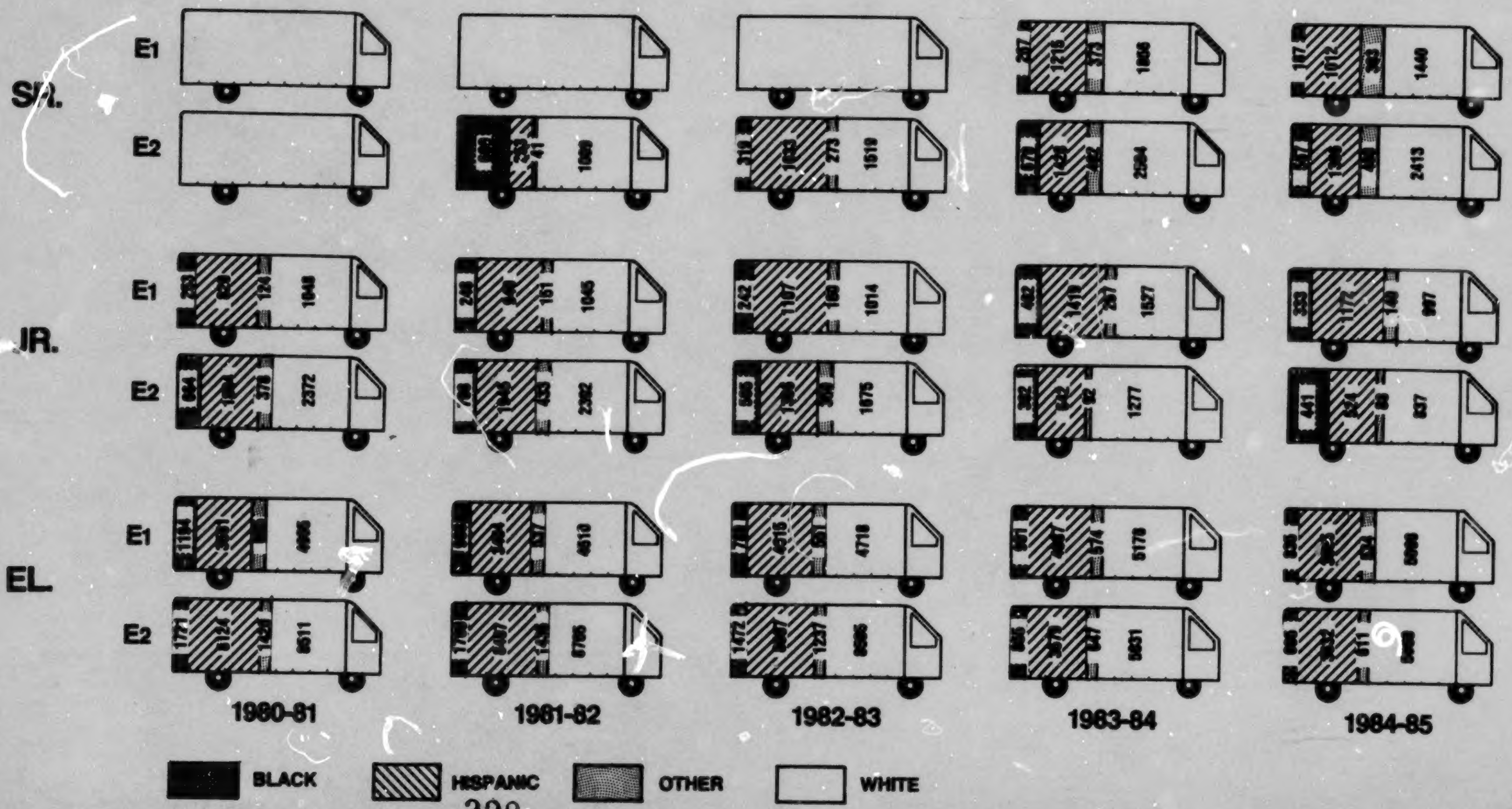
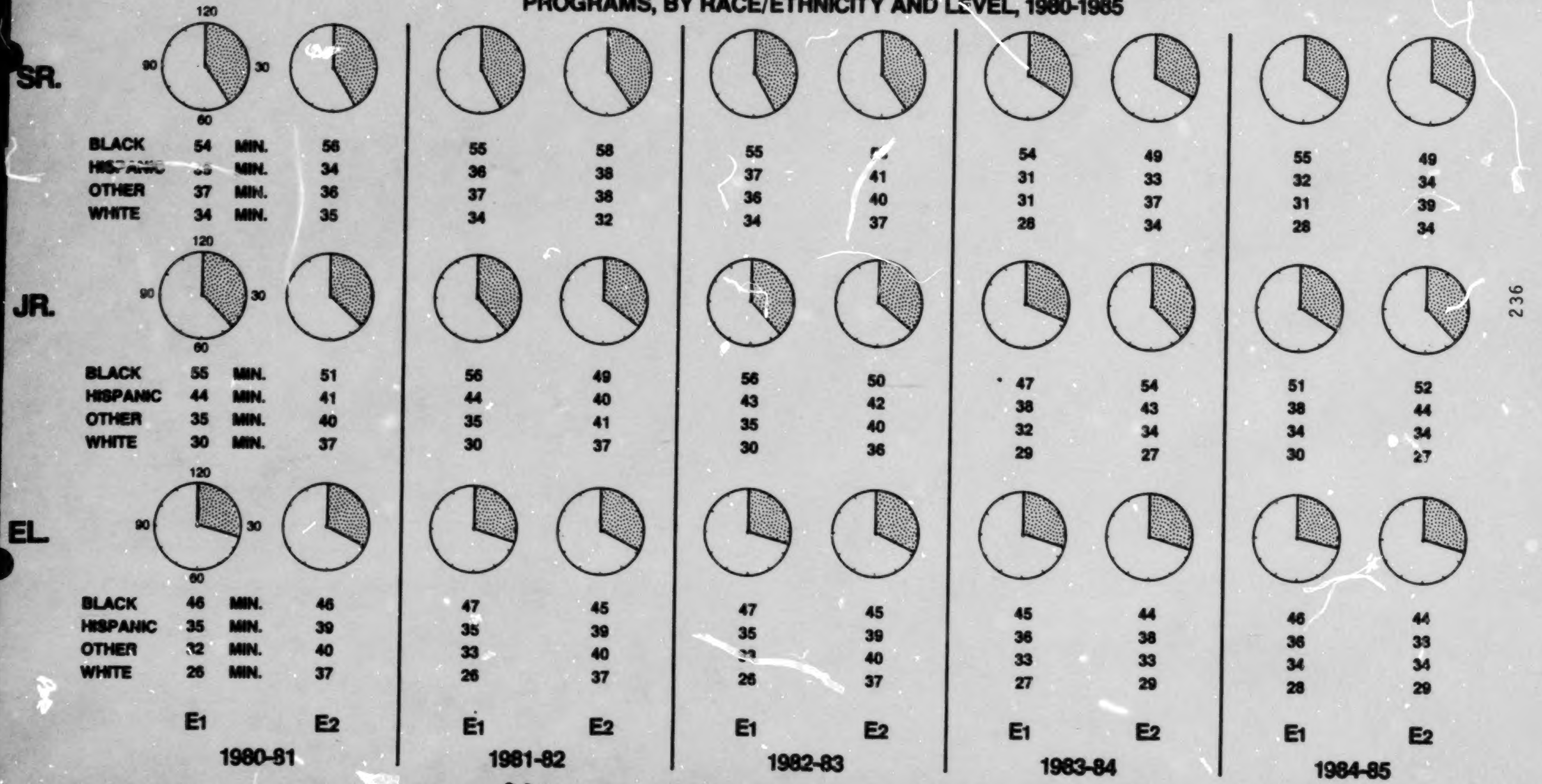


CHART 68

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

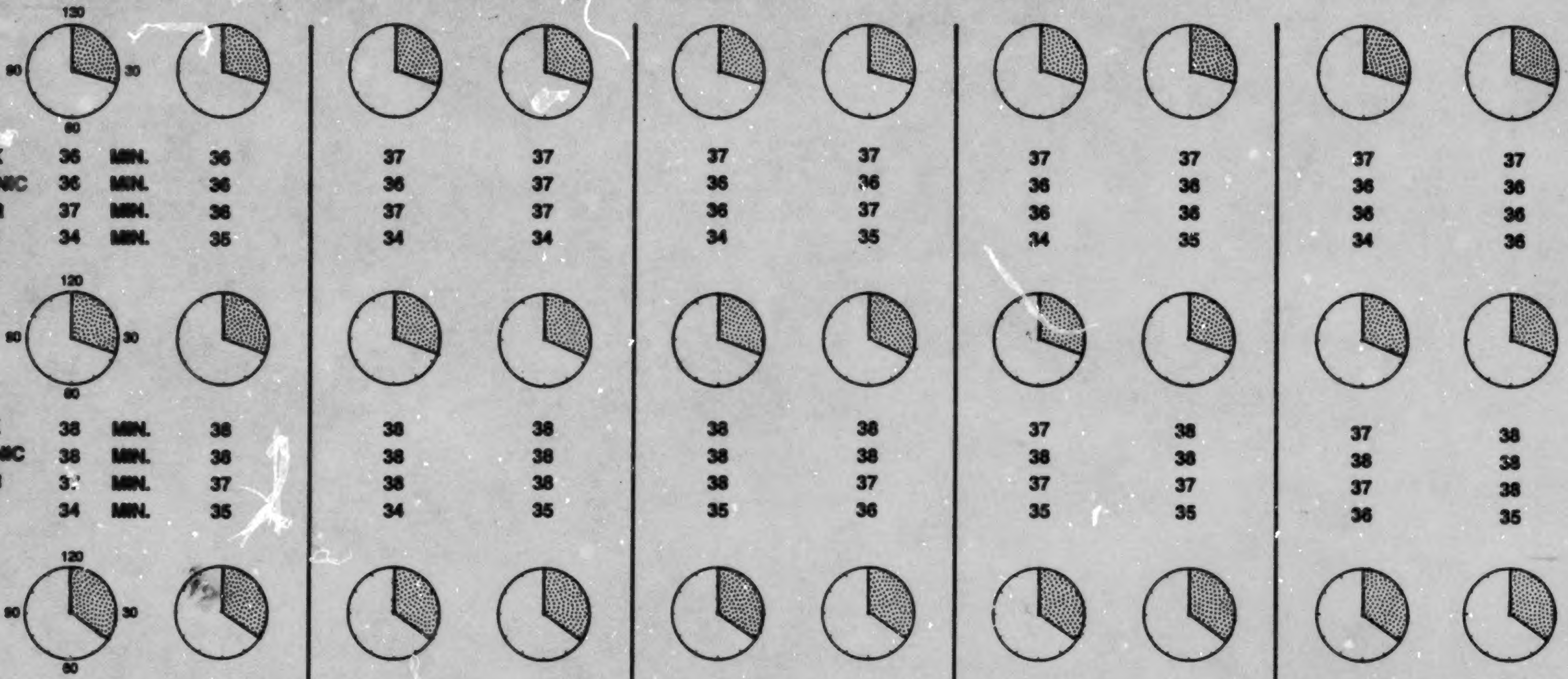


		1980-81 E1	1980-81 E2	1981-82 E1	1981-82 E2	1982-83 E1	1982-83 E2	1983-84 E1	1983-84 E2	1984-85 E1	1984-85 E2
SR.	BLACK	54 MIN.	56	55	58	55	[illegible]	54	49	55	49
	HISPANIC	35 MIN.	34	36	38	37	41	31	33	32	34
	OTHER	37 MIN.	36	37	38	36	40	31	37	31	39
	WHITE	34 MIN.	35	34	32	34	37	28	34	28	34
JR.	BLACK	55 MIN.	51	56	49	56	50	47	54	51	52
	HISPANIC	44 MIN.	41	44	40	43	42	38	43	38	44
	OTHER	35 MIN.	40	35	41	35	40	32	34	34	34
	WHITE	30 MIN.	37	30	37	30	36	29	27	30	27
EL.	BLACK	46 MIN.	46	47	45	47	45	45	44	46	44
	HISPANIC	35 MIN.	39	35	39	35	39	36	38	36	33
	OTHER	32 MIN.	40	33	40	33	40	33	33	34	34
	WHITE	26 MIN.	37	26	37	26	37	27	29	28	29

CHART 69

VOLUNTARY/MANDATORY PLANS E1 AND E2

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

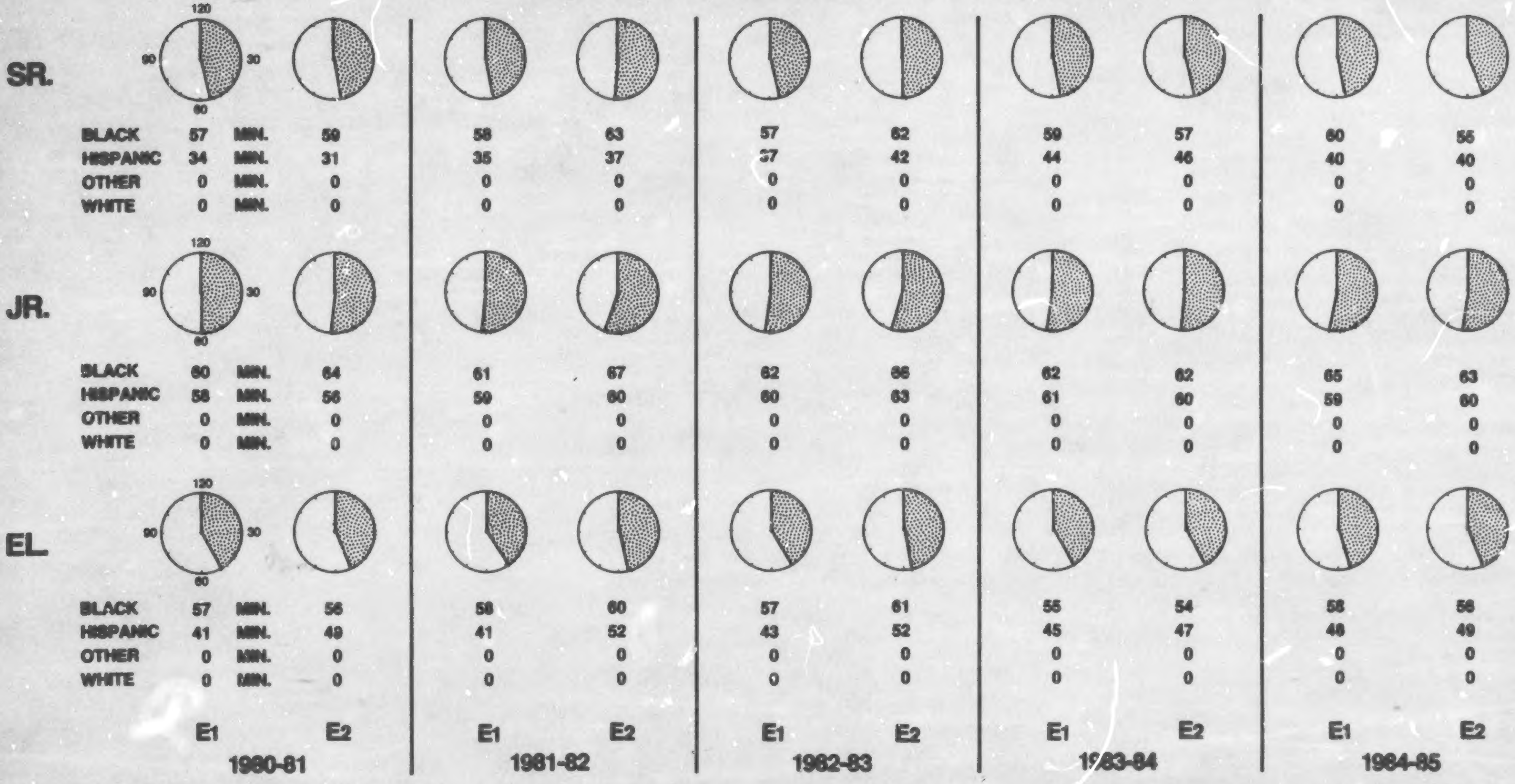


		1980-81 E1		1980-81 E2	1981-82 E1	1981-82 E2	1982-83 E1	1982-83 E2	1983-84 E1	1983-84 E2	1984-85 E1	1984-85 E2
SR.	BLACK	36	MIN.	36	37	37	37	37	37	37	37	37
	HISPANIC	36	MIN.	36	36	37	36	36	36	36	36	36
	OTHER	37	MIN.	36	37	37	36	37	36	36	36	36
	WHITE	34	MIN.	35	34	34	34	35	34	35	34	36
JR.	BLACK	38	MIN.	38	38	38	38	38	37	38	37	38
	HISPANIC	38	MIN.	38	38	38	38	38	38	38	38	38
	OTHER	[illegible]	MIN.	37	38	38	38	37	37	37	37	38
	WHITE	34	MIN.	35	34	35	35	36	35	35	36	35
EL.	BLACK	42	MIN.	42	42	42	42	42	42	42	42	42
	HISPANIC	42	MIN.	42	42	42	42	42	42	43	42	43
	OTHER	42	MIN.	42	42	42	41	42	42	42	42	42
	WHITE	38	MIN.	38	38	38	37	38	37	37	37	37

CHART 70

VOLUNTARY/MANDATORY PLANS E1 AND E2

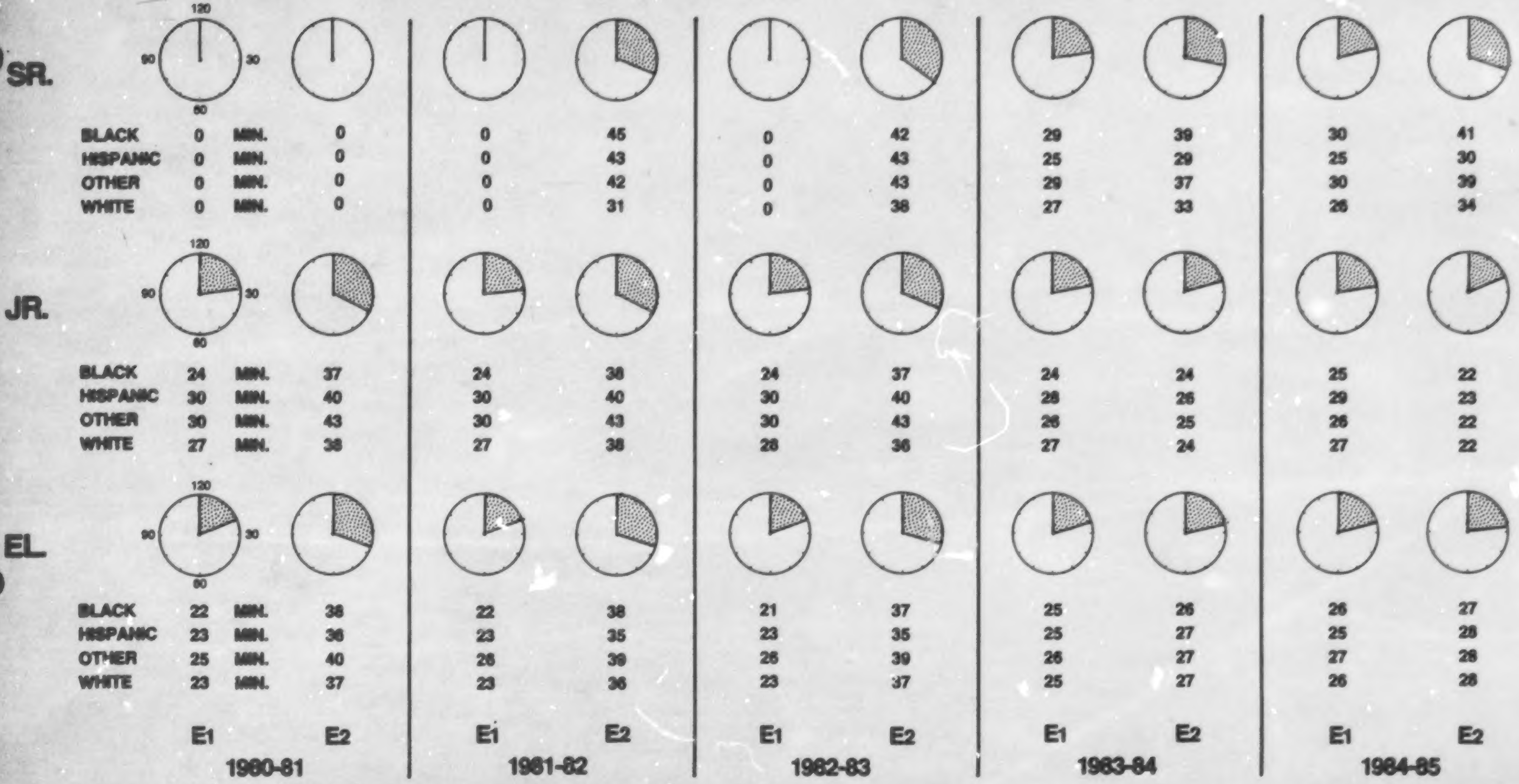
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED UNDER PWT PROGRAM BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 E1		1980-81 E2	1981-82 E1	1981-82 E2	1982-83 E1	1982-83 E2	1983-84 E1	1983-84 E2	1984-85 E1	1984-85 E2
SR.	BLACK	57	MIN.	59	58	63	57	62	59	57	60	55
	HISPANIC	34	MIN.	31	35	37	37	42	44	46	40	40
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
JR.	BLACK	60	MIN.	64	61	67	62	66	62	62	65	63
	HISPANIC	58	MIN.	56	59	60	60	63	61	60	59	60
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
EL.	BLACK	57	MIN.	56	58	60	57	61	55	54	58	56
	HISPANIC	41	MIN.	49	41	52	43	52	45	47	46	49
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0

CHART 71

VOLUNTARY/MANDATORY PLANS E1 AND E2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81			1981-82		1982-83		1983-84		1984-85	
		E1		E2	E1	E2	E1	E2	E1	E2	E1	E2
SR.	BLACK	0	MIN.	0	0	45	0	42	29	39	30	41
	HISPANIC	0	MIN.	0	0	43	0	43	25	29	25	30
	OTHER	0	MIN.	0	0	42	0	43	29	37	30	39
	WHITE	0	MIN.	0	0	31	0	38	27	33	26	34
JR.	BLACK	24	MIN.	37	24	38	24	37	24	24	25	22
	HISPANIC	30	MIN.	40	30	40	30	40	28	26	29	23
	OTHER	30	MIN.	43	30	43	30	43	26	25	26	22
	WHITE	27	MIN.	38	27	38	28	36	27	24	27	22
EL.	BLACK	22	MIN.	38	22	38	21	37	25	26	26	27
	HISPANIC	23	MIN.	36	23	35	23	35	25	27	25	28
	OTHER	25	MIN.	40	26	39	26	39	26	27	27	28
	WHITE	23	MIN.	37	23	36	23	37	25	27	26	28

Variations F1 and F2

Basic Ground Rules

Variations F1 and F2 complete the process of making determinations about a school's racial/ethnic balance without permitting voluntary pupil applications and/or assignments to affect those determinations. In these variations, no pupils are permitted to be assigned to Magnet or PWT programs until all racial/ethnic balance readings have been taken and mandatory assignments made on the basis of all pupils enrolling in their home schools. (Again, the reader is reminded that the model's "home school" basis differs somewhat from the actual one because of the impossibility of replacing some pupils in their home areas using existing data.) Thus, in these variations no school can be exempted from mandatory programs on account of any behavior of the voluntary (i.e., Magnet and PWT) programs, and the latter are restricted to those pupils who can be fitted into the pattern without pushing a school out of the "Desegregated" category.

This is the sole difference between Plans F1 and F2 and those labelled E1 and E2. All other rules, including the grade spread first introduced in D1 and D2, remain the same in this simulation.

Difference Between the Variations

Plans F1 and F2 differ from each other in only one respect:

- Plan F1 imposes a maximum travel time limitation for any mandatorily transported pupil of 30 minutes.
- Plan F2 imposes a maximum travel time limitation for any mandatorily transported pupil of 45 minutes.

Number of Segregated/Desegregated Schools

Chart 72 shows the numbers of schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. Since Magnet programs are counted (as they are in current District practice) as separate schools, the total number of schools rises and falls as Magnets are formed and closed.

In brief, as the Chart shows:

- -- In Plan F1 the number of Desegregated schools starts at 188 (or 28%) in 1980-81 and falls to 164 (or 25%) by 1984-85. The corresponding numbers for Plan F2 are 234 (or 36%) and 178 (or 27%).
- -- In Plan F1 the number of Segregated schools starts at 462 (or 71%) in 1980-81 and rises to 478 (or 74%) by 1984-85. The corresponding numbers for Plan F2 are 407 (or 63%) and 466 (or 72%).
- -- In Plan F1, within the "Segregated" category, the number of RIWS declines from 69 to 20 by 1985, while RIMS increase from 393 to 458. The corresponding figures for Plan F2 are 25 to 15 in the case of RIWS, and 382 to 451 in the case of RIMS.

Overall, the broadest finding of the simulation is that, given the parameters stated herein, neither Plan will desegregate more than 36% of the schools in 1980-81, nor retain more than 27% of them in that category in 1984-85. In both Plans the number of schools desegregated falls during the second and third years of the projections, jumps up again with the 1983 reassignments, but then drops rapidly to about the same level in the fifth year.

The simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be a noticeable increase in the number of Desegregated schools. For Plan F1 this expansion would raise the total number of currently Desegregated schools by 15, or by 9%. In the case of Plan F2, 61 Desegregated schools (or 35% of the current Desegregated group) would be added to the total.

Both Plans would accomplish substantial additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan F1 would desegregate 123 more schools in 1980-81 and 99 more in 1984-85 than would be demographically expected in the absence of a plan. Plan F2 would desegregate 169 more schools in 1980-81 and 115 more in 1984-85 than would demographic forces operating without intervention by a plan.

However, the difference between the two Plans -- the additional 15-minute travel time allowance in Plan F2 -- displays a slightly slower and more volatile form of the convergence phenomenon observed in the first two sets of variations of this prototype. Because the mandatory element is much more important to this set of variations than to those sets, the results are very sensitive to the number of times that mandatory reassignments (i.e., new Pairings/Clusterings/Midsitings) are made. Within that pattern, they do converge. The difference in favor of Plan F2 is 46 Desegregated schools in 1980-81, 39 schools in 1981-82, 23 schools in 1982-83, 19 schools in 1983-84, and 14 schools in 1984-85. Meanwhile, both Plans make large reductions in RIWS, with no reversals in the downward annual trend, and the effects of the Plans steadily converging. But neither Plan has much effect on RIMS, where their results run very close to each other except for a brief downward interruption in a generally upward movement effected by Plan F2 in the first year after the 1983 reassignments. In 1984-85, Plan F2 features only three fewer RIMS than Plan F1. Once again, the 15-minute travel time allowance proves to be of very little desegregation significance in the latter years of the period.

The convergence is even more pronounced with respect to the evolution of RIWS and RIMS. By 1984-85 the RIWS totals for the two plans are only five schools apart (though they start 44 apart). The RIMS projections stay very close to each other, steadily rising year by year, throughout the projection period, starting at 11 and finishing only seven schools apart. Put another way, the effects of the two plans within the "Segregated" category of schools are virtually identical for RIMS and rapidly convergent in the case of RIWS.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by these two variations involve substantial pupil flight. And, since more schools are involved in mandatory transportation in one Plan than in the other, the flight estimates for the two differ. For Plan F1 the total 1984-85 student body is projected to be 546,000 pupils, of whom 118,000 (or 22%) would be Black, 296,000 (or 54%) would be Hispanic, 49,000 (or 9%) would be Other Minorities and 83,000 (or 15%) would be White. The total pupil population represents a loss of 51,044 (or 9%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 30% drop below the demographic projection.

Plan F2 is projected to produce a total pupil population of 544,000 in 1984-85, of whom 118,000 (or 22%) would be Black, 297,000 (or 55%) Hispanic, 49,000 (or 9%) Other Minorities, and 81,000 (or 15%) White. The loss from demographic expectations would be 53,000 pupils (or 9%) below demographic projections. As is clear from these numbers, Plan F2 would involve about 1% more flight than Plan F1.

Chart 73 depicts the numbers of pupils attending schools in each category under each Plan during the projection period. In brief, it shows that:

- In Plan F1 the total number of pupils in Desegregated schools starts at 137,000 (or 26%) in 1980-81 and declines to 114,000 (or 21%) in 1984-85. The corresponding figures for Plan F2 are 160,000 (or 32%) and 122,00 (or 22%).
- In Plan F1 the number of pupils in Segregated schools begins at 396,000 (or 74%) in 1980-81 and rises to 433,000 (or 79%) in 1984-85. The corresponding figures for Plan F2 are 348,000 (or 68%) and 422,000 or 78%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 160,000 (or 32%), and that would be accomplished only in the first year. By 1984-85, this number is projected to shrink to the 112-119,000 range (or 21-22%). In both instances, the forecast is for slow decline from the first year peak in the next years of the period, a very mild upsurge in the fourth, and then rapid -- and converging -- decline in the fifth. Both Plans would desegregate a greater percentage share of *schools* in all years than they would generate desegregation of *pupils*.

The model suggests that the *immediate effect* of introduction of either Plan, as compared to actual conditions in 1979-80, would be about the same percentage increase in the aggregate number of *pupils* in Desegregated schools as would be achieved in the total number of such *schools*. Plan F1 would result in 19,000 (or 16%) more pupils in Desegregated schools in 1980-81 than are actually in such institutions in 1979-80, and Plan F2 would generate 42,000 (or 36%) more than the current level.

Both Plans F1 and F2 would effectuate much more desegregation of pupils than would have occurred in the absence of any plan. Plan F1 is forecast to put 73,000 more pupils in this situation in 1980-81 and 133,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan F2 are 99,000 in 1980-81 and 68,000 in 1984-85.

Looking across the full projection period, *the two Plans* again show the converging phenomenon already described with regard to schools. By 1984-85, the difference between the number of pupils in Desegregated schools in one Plan as against the other is only 7,000. Again, the model's suggestion is that 15 minutes' difference in travel ceiling becomes of relatively little significance by the end of the period, though it does matter importantly in the first two years. In 1984-85, under either Plan, no more than 25% of LAUSD pupils would attend Desegregated schools. This would mean that the odds that a pupil would attend such a school would be about one in four, compared to the one in ten that would be predicted on the basis of demographic factors alone. However, the odds that a White pupil would have this experience would be about one in ten in 1984-85 under either Plan, while the odds for a Minority pupil would be about one in nine.

Differential Effects on Grade Levels

Charts 74, 74A, 75, and 76 present the elementary, junior high school, and high school effects of the two Plans by racial/ethnic groups. In brief, they show that:

-- Among elementary school pupils, sixth graders would make up the highest proportion (15-16% in both Plans in all years), while third graders would comprise the least (still 16% when rounded).

-- Among junior high school pupils, there is no discernible annual pattern, but such pupils would always make up 33-35% of the total.

-- Among senior high school pupils, tenth graders would be the largest group (38-39%), while twelfth graders would be the smallest (28% in both Plans).

-- Between 72% and 82% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 68-75%, and for senior high school enrollees 66-77%.

Overall, the simulation indicates that restricting the voluntary options would not change the pattern of pupils in Desegregated schools by very much. The shares of pupils in such schools at each level would be almost precisely the same as in variations that do not prohibit pre-mandatory assignment of pupils in voluntary programs. This pattern is 15-16% elementary, 33-35% junior high school, and 29-30% in high school, with tenth grade the point where the share of any single grade reaches its peak. The segregated share is also familiar: 72-82% of all elementary pupils, 68-76% of all junior high schoolers, and 66-77% of high school enrollees in Segregated schools throughout the period.

Racial/Ethnic Mix of Schools

Charts 77, 78, and 79 present the racial/ethnic mix of, respectively, elementary, junior high, and senior high schools. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier.

In brief, these Charts indicate that:

-- The number of elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two Plans in 1980-81 ranges from 54 (or 12% of all elementary schools) to 82 (or 18%). By 1984-85, this range narrows to 8-9%.

-- The number of elementary schools in the two bands closest to "Segregated" (0-20% amd 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 225 (or 49% of all elementary schools) to 240 (or 52%). By 1984-85, this range narrows to 63-64%.

-- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 8 (or 9%) of all junior high schools) to 17 (or 18%). By 1984-85, this range narrows to 8-10%.

-- The number of junior high schools in the bands closest to "Segregated" in 1980-81 is 46 (or 50%) in both Plans. By 1984-85, this figure gives way to a range of 58-66%.

-- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 18 (or 18% of all senior high schools) to 24 (or 25%). By 1984-85, this range closes to 20%.

-- The number of senior high schools in the bands closest to "Segregated" in 1980-81 ranges from 56 (or 57% of all senior high schools) to 61 (or 61%). By 1984-85, this range narrows to 63-64%.

Overall, the simulation illustrates the fact that both Plans result in all school levels having 58-66% of their institutions in the "most Segregated" bands in 1984-85. The elementary schools begin with only 49-52% in these bands, the junior high schools with 50%, and the senior high schools with 56-61%. At the end of the period, the elementary and senior high schools would be in the 63-64% "most Segregated" range, which is familiar from other variations. The effect of prohibiting exemption from mandatory transportation through successful application to a voluntary program apparently shows up most noticeably in the junior high schools, where the pattern over the period is (i) for the effects of the Plans to diverge rather than converge; (ii) for the share of "near-Desegregated" schools to increase rather than shrink; and (iii) for the number of "most Segregated" institutions to show little percentage growth under Plan F1.

Pairs/Clusters/Midsites

Charts 80 and 81 list the Pairs/Clusters/Midsites formed by the model under the restrictions of Plans F1 and F2, broken down by how long each set lasts in the face of demographic pressures. The complexities involved in forecasting the announcement and implementation of mandatory linkages between schools have been discussed in connection with the groupings generated by variations C1 and C2 (page 113). It is assumed here that the reader has read that discussion and understands the difference between an announced and an activated grouping. In brief the Charts show that:

- -- Plan F1 would result in an announced total of 68 Pairs, eight Clusters, and four Midsites (of which 36 Pairs, seven Clusters, and four Midsites would be activated) in 1980-81, changing to 65 Pairs, no Clusters, and 10 Midsites (of which 54 Pairs and nine Midsites would be activated) by 1984.
- -- Under Plan F1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 68 Pairs, eight Clusters, and four Midsites would be announced in 1980, of which two Pairs, no Clusters, and no Midsites would last through 1985. Sixty-three new Pairs, no new Clusters, and 10 new Midsites would be announced in 1983.
- -- Plan F2 would result in an announced total of 125 Pairs, seven Clusters, and 14 Midsites (of which 78 Pairs and all of the Clusters and Midsites would be activated) in 1980-81, changing to 75 Pairs, no Clusters, and one Midsite (of which 69 Pairs and the Midsite would be activated) by 1984-85.
- -- Under Plan F2, no current Pairs, Clusters, or Midsites would endure in future years. All 125 Pairs, seven Clusters, and 14 Midsites would be announced in 1980, of which one Pair, no Clusters, and no Midsites would last through 1985. Seventy-four new Pairs, no Clusters, and one Midsite would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by either Plan. Of the new matches announced in 1980, only two Pairs would emerge from the 1983 reassignment under Plan F1, and only one would survive under Plan F2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, none -- or almost none -- of the resulting matches is any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of Desegregated schools, nearly every eligible school must be reassigned to a different grouping. Also, since both Plans fall off sharply in the number of schools and pupils that they desegregate in the fifth year of the period (1984-85), it is clear that the new matches become less and less efficacious over time.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) would be quite important in both Plans. In Plan F1, this effect invalidates 33 groupings (or 41% of all groupings) in 1980-83 and 12 (16%) in 1983-85. Under Plan F2, these factors invalidate 47 (or 32%) of announced groupings in 1980-83, but only six (or 8%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan F1 would have twelve groupings (ten Pairs, one Cluster, and one Midsite -- or 26% of the activated groups) in this partially invalidated category during 1980-83, and nine groupings (all Pairs -- and 14% of the activated groups) in 1983-85. Plan F2 would have 27 groupings (17 Pairs, five Clusters, and five Midsites -- or 27% of all activated groups) partially invalidated in 1980-83, and nine (all Pairs -- 13% of all activated groups) in that status during 1983-85.

Both Plans would encounter less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 12-27 (26-27% of all active) groupings created under either Plan would not be transporting pupils in at least one year. In the second interval only nine (or 13-14%) of all activated groups would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would decline as the number of activated groups declined. However, uncertainty would be great in the early years of the period. More than half (45) of the 80 groupings announced under Plan F1 in 1980 would be fully or partially invalidated in the fall and not operate in at least one of the first three years. The same would be true on a larger scale under Plan F2, where 74 of the 146 groupings (51%) would be fully or partially invalidated. The corresponding results during the 1983-85 interval would be less dramatic but still not trivial for Plan F1, but minor for Plan F2.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be a complete change in the groupings of schools that are being employed this year, but a major increase in the number of each kind of grouping now in actual use. The number of Pairs/Clusters/Midsites announced in 1980-81 would be significantly larger under Plan F1 and more than double the actual range of 1979-80 in the case of Plan F2.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/Midsiting of the 15-minute travel time allowance that divides them. The extra time results in not quite twice as many announced groupings in Plan F2 as in Plan F1. And they are largely new groupings -- only 15 of the Pairs formed in 1980 and 17 of the ones announced in 1983 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, the sets of pupils involved in mandatory transport would be quite different, depending on which Plan were chosen.

Finally, the Charts again show the greater utility of the Midsite device under the pressure of the travel time constraint. Clustering becomes inefficient within the 30-minute limit as the number of Whites in the pupil population falls because of demographic trends, but the use of Midsites becomes substantially more effective within the bounds imposed on Plan F1. Under F2 conditions, on the other hand, Clusters disappear and Midsites fall to only one in the last two years of the period, and the number of announced Pairs falls substantially (125-75) as well. It is for this reason that the two Plans converge in their desegregation effects over the latter years of the period; Plan F2 is able to use most of the operating room provided it in the early years, and does not become more efficient later, while Plan F1, by moving to Midsiting, can largely maintain its desegregation momentum. Still, of course, Plan F2 remains the more effective desegregator of both schools and pupils in all years of the projection. In the last year of the period, however, this difference is small.

Magnet Schools

The interplay between demographic forces and Magnet demand generates changes in the Magnet list for each Plan in every year. Therefore, a simplified chart presentation of Magnet results is impossible. The aggregates projected may be summarized as follows:

-- Plan F1 would result in a total of 49 Magnets in 1980-81, of which 10 would be new and 39 would be from the current list. Of the total, 38 (or 77% of all Magnets) would be Segregated by the definition used herein. Plan F2 would generate 40 total Magnets in that year, 7 new and 33 old, of which 33 (or 83% of all Magnets) would be Segregated.

-- In 1984-85, Plan F1 would yield a total of 41 Magnets, of which 34 (or 83%) would be Segregated. The corresponding numbers for Plan F2 would be 43 and 35 (or 82% of all Magnets).

-- Under Plan F1 34 current Magnets would operate through the entire projection period, while seven of those first opened in 1980-81 would survive the full five years. Under Plan F2 32 current Magnets would last the full period, and seven of the 1980-81 crop would last.

-- The number of pupils attending Magnets in 1980-81 under Plan F1 would be 7,714 (or 1% of all pupils). These pupils would be 28% Black, 45% Hispanic, 7% Other Minorities, and 19% White. Under Plan F2, the total number of pupils would be 5,350 (or 1% of all pupils), and the racial/ethnic breakdown would be 32% Black, 47% Hispanic, 5% Other Minorities, and 16% White.

-- By 1984-85 the number of pupils attending Magnets under Plan F1 would fall to 6,112 (or 1% of all pupils). They would then be 22% Black, 55% Hispanic, 9% Other Minorities, and 14% White. Under Plan F2 the total number of pupils would be 6,409 (or 1%), of whom 22% would be Black, 55% Hispanic, 9% Other Minorities, and 14% White.

Overall, the simulation indicates that the Magnet program would shrink substantially and become 82-83% segregated under either Plan, as both would eliminate the exemption from mandatory transportation resulting from Magnet enrollment in other variations. Both Plans would emerge in 1984-85 with 6,100-6,400 Magnet pupils of which 86% would be Minority members very largely attending

Segregated Magnets that would be survivors from the Segregated portion of the 1979-80 complement.

The immediate effect of the installation of either Plan as compared with actual conditions in 1979-80, would be a reduction in the number of Magnets (from 59 to 40-49), and a much sharper cut in the number of pupils enrolled in them (from 12,000 to 5-8,000). Of the Magnets in existence in 1979-80, 32-34 would survive the entire projection period. Racial/ethnic balance would change completely in 1980-81, shifting from 56% Minority particicipation to 80-84% Combined Minorities.

The two Plans would get to their common 1984-85 result by opposite routes. Plan F1, involving fewer mandatory linkages, would divert fewer pupils to mandatory programs and result in a 1/3 cut in the current total of Magnet enrollees in 1980-81, then smaller reductions in each of the later years. Plan F1, on the other hand, would cut the current total by 58% in 1980-81, then add more pupils in each later year as its number of activated mandatory groupings shrank. Thus, the trend under F1 would be a steadily decreasing enrollment, while under F2 it would be a slightly increasing one, after a sharp initial cut. By 1984-85, however, the Plans would meet at almost precisely the same place.

Pupils Transported

Chart 82 shows the total number of pupils who would be transported under the two Plans, by level and the race/ethnicity of the pupils involved. Chart 83 presents those who would be mandatorily transported. In brief, they suggest that:

- From 37,000 (or 7% of all pupils) to 41,000 (or 8%) pupils would be transported in 1980-81. The corresponding range for 1984-85 would be 32-33,000 (6%).
- Most pupils transported in all years would be elementary school pupils; 51-56% of all those transported would be

drawn from these grades under both Plans in all years.

-- The burden of transportation to non-neighborhood schools would fall predominantly upon Minority pupils in both Plans in all years. In 1980-81, from 70 to 79% of all pupils transported would be Minority, with Blacks making up 28-40%, Hispanics 35-37%, and Other Minorities 3-5%. In 1984-85 the travel share of Minorities would fall to 61-70% and the individual share of Blacks would be from 24-25%, for Hispanics 40-41% and for Other Minorities 2-3%.

-- Of all Minority pupils in the system, about 7% would be transported in 1980-81, falling to 5% in 1984-85. Blacks would move from a 9-12% range in 1980-81 to a 4-7% range in 1984-85. The corresponding numbers for Hispanics would be 5-7% and 4-5%; and for Other Minorities 3-5% and 2-3%. The share of White pupils transported would start the period in the 6-11% range, and rise to the 9-12% range by 1984-85.

Overall, the simulation suggests that the removal of Magnet pupils from exemption from mandatory assignment would have visible effects on the transportation figures. The Minority share of those transported, while still well over half, would be less imposing than in previous variations, and the White share would rise each year. The Black share, on the other hand, would fall almost continuously. The total transported would drop to 32-33,000 under both Plans. This would represent an 11% decrease under Plan F1 and a 22% fall under Plan F2. By 1984-85, about one White pupil in nine would be transported, as against one in nine Blacks, one in 20 Hispanics, and one in 40 of Other Minorities.

The immediate effect of adopting either Plan F1 or Plan F2 in 1980-81, as compared with actual conditions in 1979-80, would be a modest to noticeable decrease in the total number of pupils transported, and large changes in their racial/ethnic balance. The total number of Whites transported would remain at 8,000 under both Plans. The reduction of 2-6,000 pupils would occur entirely in the Minority total.

The differences between the two Plans would be very small in aggregate totals in 1984-85, but more significant in terms of alternative racial/ethnic mixes. The difference between the shar of pupils of each ethnicity who would be transported would run 2-3% in the last year. Plan F1 would generally result in a higher share of Whites and Blacks, and lower shares of Hispanics and Minorities than Plan F2. And trends in mix would in general be developing in opposite directions in the two Plans.

Charts 84 and 85 break down the total pupils transported into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

-- Plan F1 would result in transportation of 8,000 pupils (or 1% of all pupils) to Magnets in 1980-81, falling to 6,000 (still 1%) in 1984-85. Under Plan F2 the 1980-81 figure would be 5,000 (or 1% of all pupils) and the 1984-85 estimate 6,000 (or 1%).

-- Under Plan F1 the 1980-81 total of pupils transported to Magnets would include 2,000 (or 28%) Blacks, 3,000 (or 45%) Hispanics, 537 (or 7%) Other Minorities, and 1,000 (or 19%) Whites. Plan F2 would result in 2,000 (or 32%) Black pupils being transported, 3,000 (or 47%) Hispanics, 276 (or 6%) Other Minorities, and 820 (or 16%) Whites.

-- Under Plan F1 the 1984-85 total of pupils transported to Magnets would include 1,000 (or 22%) Blacks, 3,000 (or 55%) Hispanics, 544 (or 9%) Other Minorities, and 895 (or 14%) Whites. Plan F2 would include 1,000 or 22%) Blacks, 4,000 (or 55%) Hispanics, 544 (or 9%) Other Minorities, and 895 (or 14%) Whites.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would change from 13-21% in 1980-81 to 19-20% in 1984-85. The racial/ethnic mix of these pupils would show a noticeable rise in the Hispanic component, a fall in the Black and White shares, and relative stability for Other Minorities.

The *immediate effect* of installation of Plan F1 would be a slightly higher number of pupils transported to Magnets than are being so transported in 1979-80, despite the fact that the system would contain 1/3 fewer Magnet enrollees under that Plan. The current total would rise about 200 pupils (the increase appears larger because of rounding). Under Plan F2 the current total would drop by 29%. In either case, the racial/ethnic balance would change dramatically, from the current 56% of Combined Minority participation to 71-75%.

By 1984-85, the *two Plans* would have almost identical effects on Magnet transportation.

Chart 85 presents the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do *not* include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools on the West Side of the District. For this reason the projection will at least slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites or Other Minorities; thus, all pupils projected to be transported in this program are Black and Hispanic pupils.

In brief, the Chart shows that:

-- Under Plan F1 the number of PWT pupils in 1980-81 would be 16,000 (or 4% of all Minority pupils). The corresponding figure for Plan F2 would be 10,000 (or 2%).

-- Of the Plan F1 total in 1980-81, 11,000 or 71%) of PWT pupils would be Black, and 5,000 (or 29%) would be Hispanic. The Plan F2 results would be 7,000 (or 73%) Blacks, and 3,000 (or 27%) Hispanics.

-- In 1984-85 both Plans would place 8,000 pupils (or 2% of all Black/Hispanic pupils) in the program.

-- Of the Plan F1 total in 1984-85, 5,000 (or 64%) would be Black, and 3,000 (or 36%) would be Hispanic. The corresponding figures for Plan F2 would be 4,000 (or 56%) Black, and 3,000 (or 44%) Hispanic.

Overall, the number of PWT participants in both Plans is projected to drop visibly (from 11-16,000 to 8,000) over the period. Black participation would fall somewhat, while Hispanic percentage involvement rose (although the same absolute numbers of Hispanics become a smaller share of total Hispanic enrollment).

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a sharp to a small drop in the number of pupils transported under this program. The current total is 18,000 (or 5% of all Black/Hispanic pupils), while the Plans would produce 10-16,000 (or 2-4%).

The two Plans would follow quite different paths to their common position at the end of the period -- 8,000 PWT pupils. Plan Plan F1 would start much higher and shrink much faster. Plan F1 would also have a significantly higher Black component, and a correspondingly lower Hispanic one, in 1984-85 than would Plan F2.

Average One-Way Travel Times

Chart 86 presents the average one-way travel times experienced by all pupils transported under the all-voluntary Plans. In brief, it shows that:

- Plan F1 would result in 1980-81 in average travel times of 34 minutes for elementary school pupils, 47 minutes for junior high pupils, and 51 for senior high schools. The corresponding figures for Plan F2 are 39 minutes, 45 minutes, and 52 minutes.
- The 1980-81 Plan F1 figures would break down to an average of 52 minutes for all Black pupils, 37 minutes for all Hispanics, 32 minutes for Other Minorities, and 26 minutes for Whites. The Plan F2 figures for the same year would break down to an average of 52 minutes for all Black pupils, 39 minutes for all Hispanics, 41 minutes for Other Minorities, and 37 minutes for Whites.
- In 1984-85, Plan F1 would generate average travel times of 34 minutes for elementary schools, 41 minutes for junior high pupils, and 39 minutes for senior high pupils. The corresponding figures for Plan F2 are 35 minutes, 44 minutes, and 37 minutes.
- The 1984-85 Plan F1 figures would break down to an average of 51 minutes for all Black pupils, 35 minutes for all Hispanics, 32 minutes for Other Minorities, and 27 minutes for Whites. The corresponding figures for Plan F2 would be 49 minutes for Blacks, 39 for Hispanics, 36 for Other Minorities, and 26 for Whites.

Overall, the two Plans would both yield shorter average travel times over the period, moving from an all-transported-pupil average of 41-42 minutes in 1980-81 to 36-38 minutes in 1984-85. The average weight of the travel time burden would always be heavier in the upper reaches of the system, with the highest average in junior and senior high schools. The gradual reduction reflects the steadily lessening numbers of mandatory linkages that would be in active operation in each succeeding year. With respect to racial/ethnic groups, Blacks would remain the highest average grouping, while the average for Hispanics would be lower than in some other voluntary/mandatory variations. Whites would continue to have the lowest averages. The fact of a lower travel time ceiling on mandatorily transported pupils in Plan F1 would be reflected entirely in the elementary school ranks, where average times would be five minutes (or 13%) shorter in 1980-81. The advantage would largely disappear by 1984-85, however, as the mandatory groupings became less numerous.

The difference between the two Plans would be considerable in some cases in the early years. In 1980-81, for example, Plan F2 would involve 42% longer average travel times for Whites and 28% longer ones for Other Minorities. By 1984-85, however, these differences shrink to miniscule proportions.

Chart 87 projects the Magnet component of average travel times, while Chart 88 does the same for the PWT component. Chart 89 shows the projections for mandatorily transported pupils. They are self-explanatory.

Summary of Quantifiable Findings

	Plan F1	Plan F2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	-46,000 (or 8%)	-71,000 (or 12%)
Projected total	533,000	508,000
1984-85		
Expected	597,000	597,000
Flight	-51,000 (or 9%)	-53,000 (or 9%)
Projected total	546,000	544,000
Desegregated Schools		
1980-81	188 (or 28%)	234 (or 36%)
1984-85	164 (or 26%)	178 (or 27%)
Segregated Schools		
1980-81		
RIWS	69	25
RIMS	393	382
Total	462 (or 71%)	407 (or 63%)
1984-85		
RIWS	20	15
RIMS	458	451
Total	478 (or 74%)	466 (or 72%)
Desegregated Pupils		
1980-81	137,000 (or 26%)	160,000 (or 32%)
1984-85	114,000 (or 21%)	122,000 (or 23%)
Segregated Pupils		
1980-81	395,000 (or 74%)	348,000 (or 68%)
1984-85	433,000 (or 79%)	422,000 (or 78%)

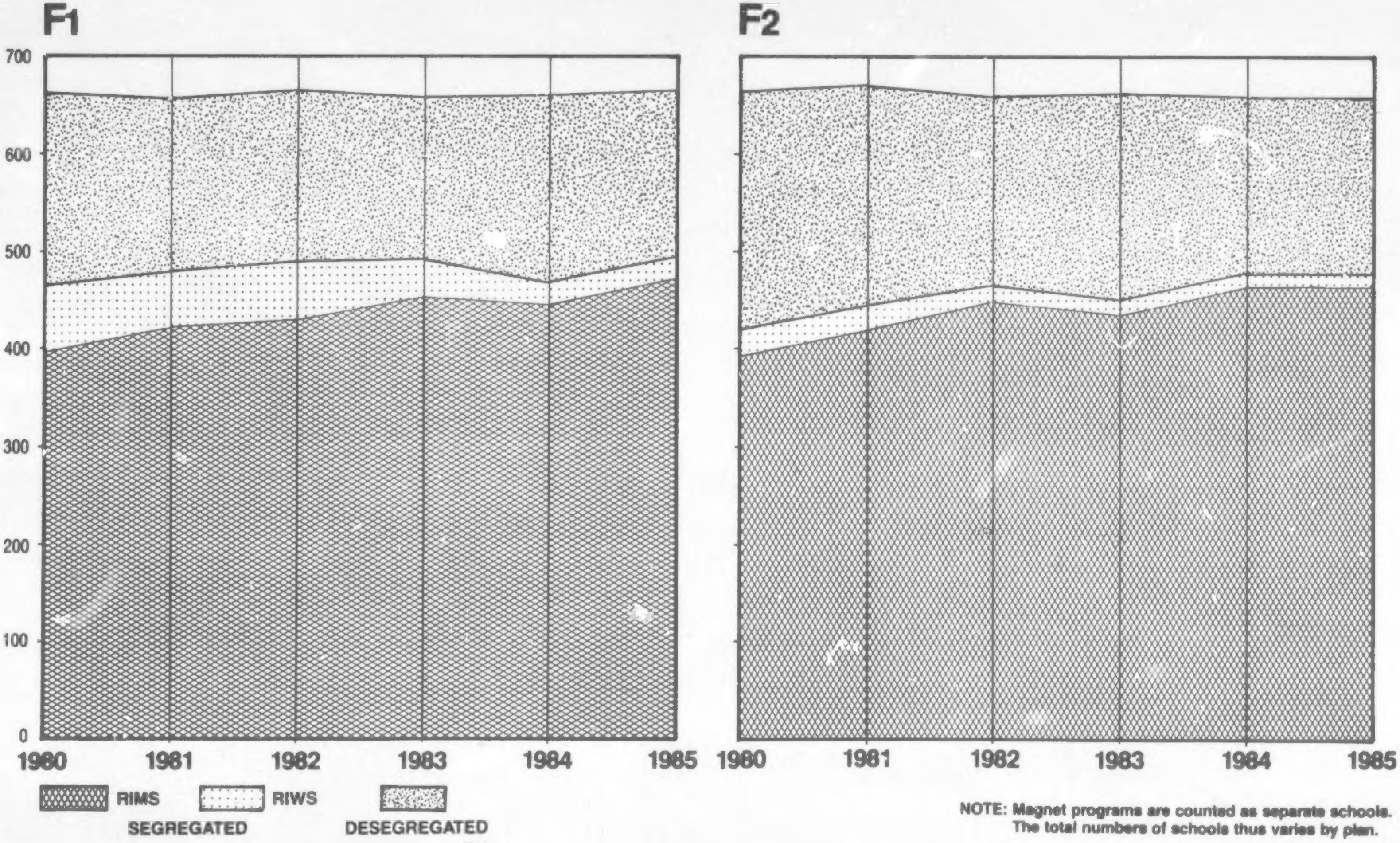
	Plan F1	Plan F2
Magnet Schools		
1980-81	49	40
1984-85	41	43
Magnet Pupils		
1980-81		
Desegregated	1,564 (or 20%)	760 (or 14%)
Segregated	6,150 (or 80%)	4,590 (or 86%)
Total	7,714	5,350
1984-85		
Desegregated	777 (or 13%)	798 (or 12%)
Segregated	5,335 (or 87%)	5,611 (or 88%)
Total	6,112	6,409
PWT Pupils		
1980-81		
Black	11,329 (or 71%)	7,169 (or 73%)
Hispanic	4,611 (or 29%)	2,610 (or 27%)
Total	15,940	9,779
1984-85		
Black	5,215 (or 64%)	4,406 (or 56%)
Hispanic	2,879 (or 36%)	3,403 (or 44%)
Total	8,094	7,809
Total Pupils Transported		
1980-81		
Voluntary	24,000 (or 65%)	15,000 (or 37%)
Mandatory	13,000 (or 35%)	26,000 (or 63%)
Total	37,000	41,000
1984-85		
Voluntary	14,000 (or 42%)	14,000 (or 44%)
Mandatory	18,000 (or 58%)	18,000 (or 56%)
Total	33,000	32,000

	Plan F1	Plan F2
Average Travel Times		
1980-81		
Overall	41 minutes	42 minutes
Black	52	52
Hispanic	37	39
Other Minority	32	41
White	26	37
1984-85		
Overall	36	38
Black	51	49
Hispanic	35	39
Other Minority	32	36
White	27	29

CHARTS FOR VARIATIONS F1 AND F2

CHART 72

VOLUNTARY/MANDATORY PLANS F1 AND F2
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

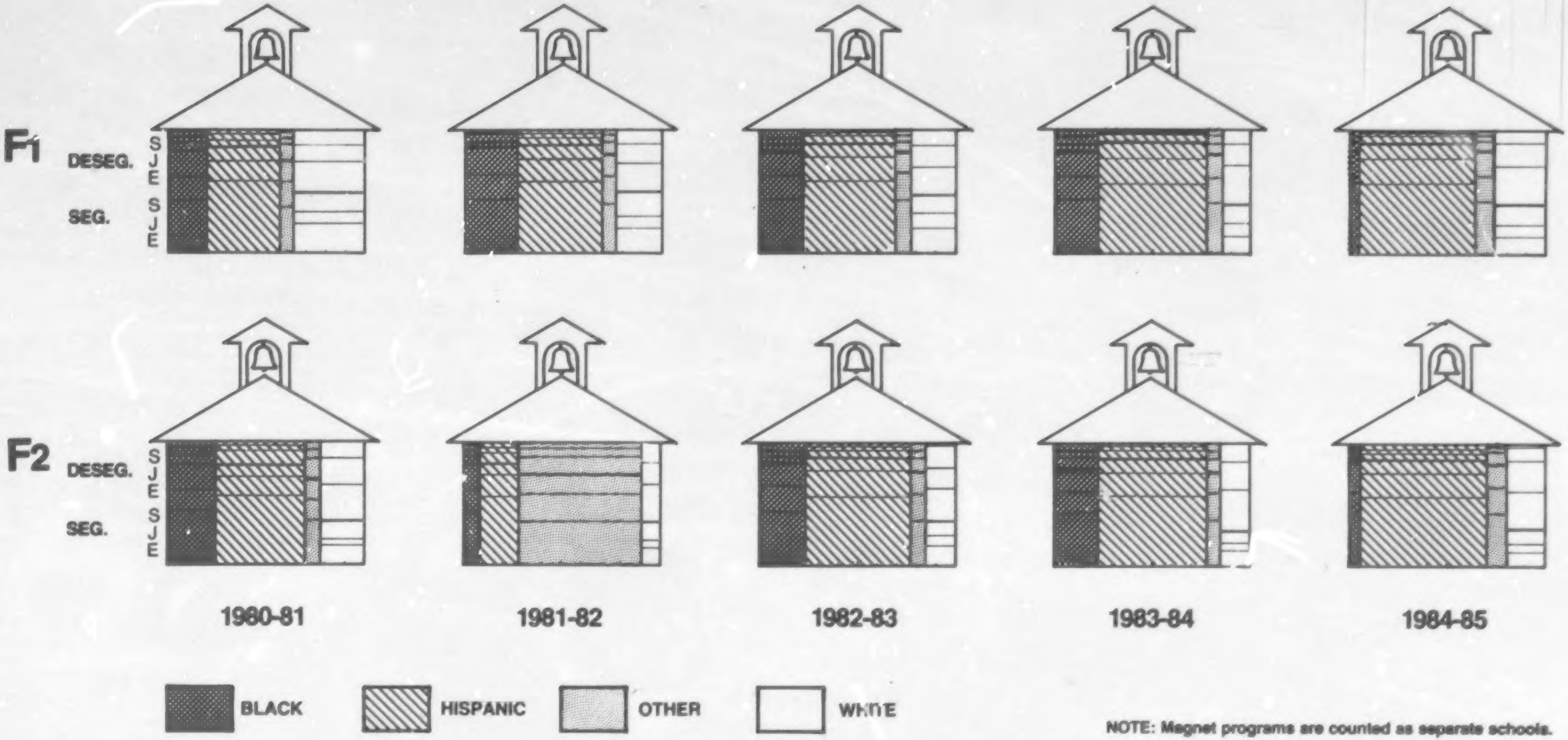


NOTE: Magnet programs are counted as separate schools. The total numbers of schools thus varies by plan.

CHART 73

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

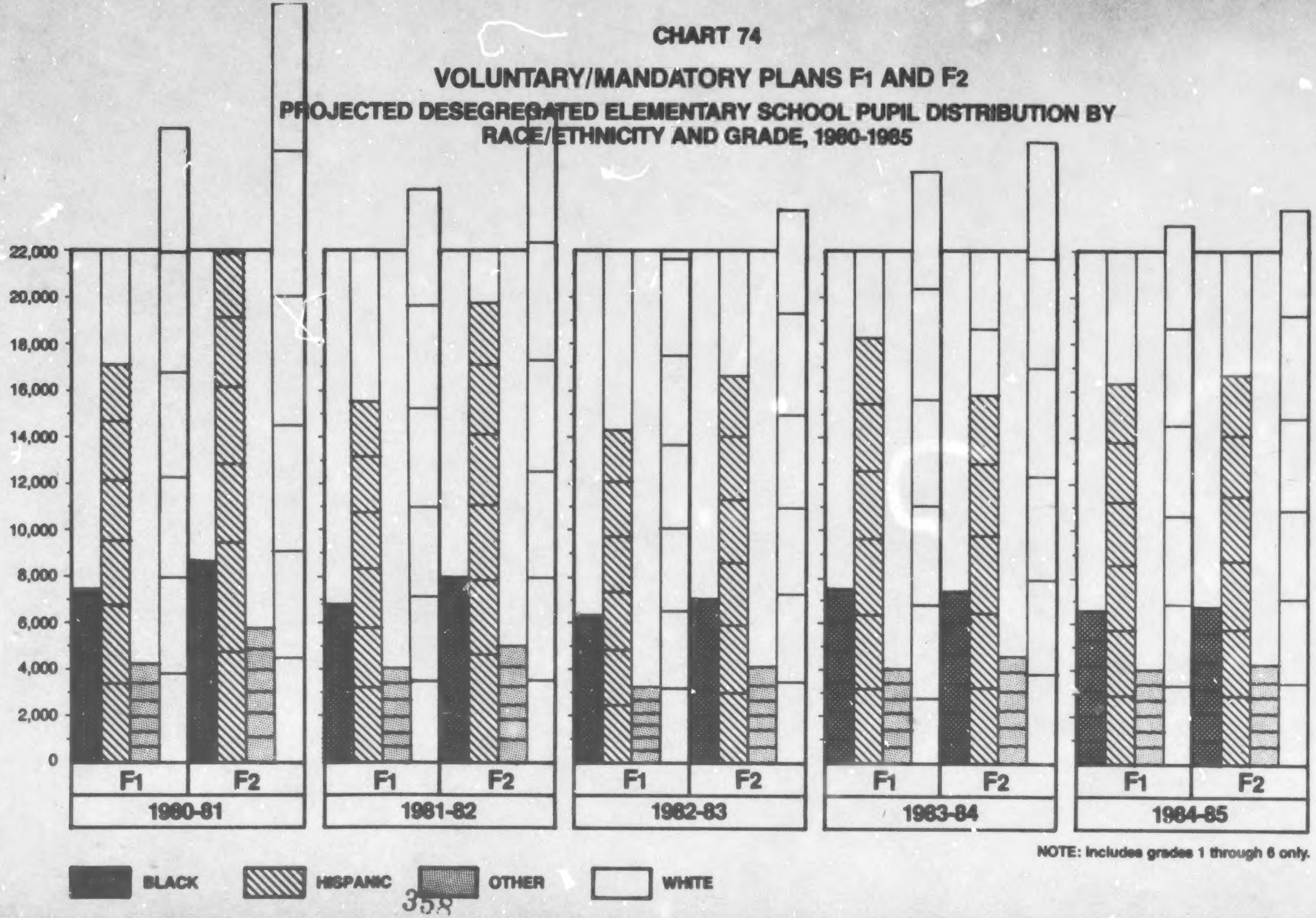


NOTE: Magnet programs are counted as separate schools.

CHART 74

VOLUNTARY/MANDATORY PLANS F_1 AND F_2

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

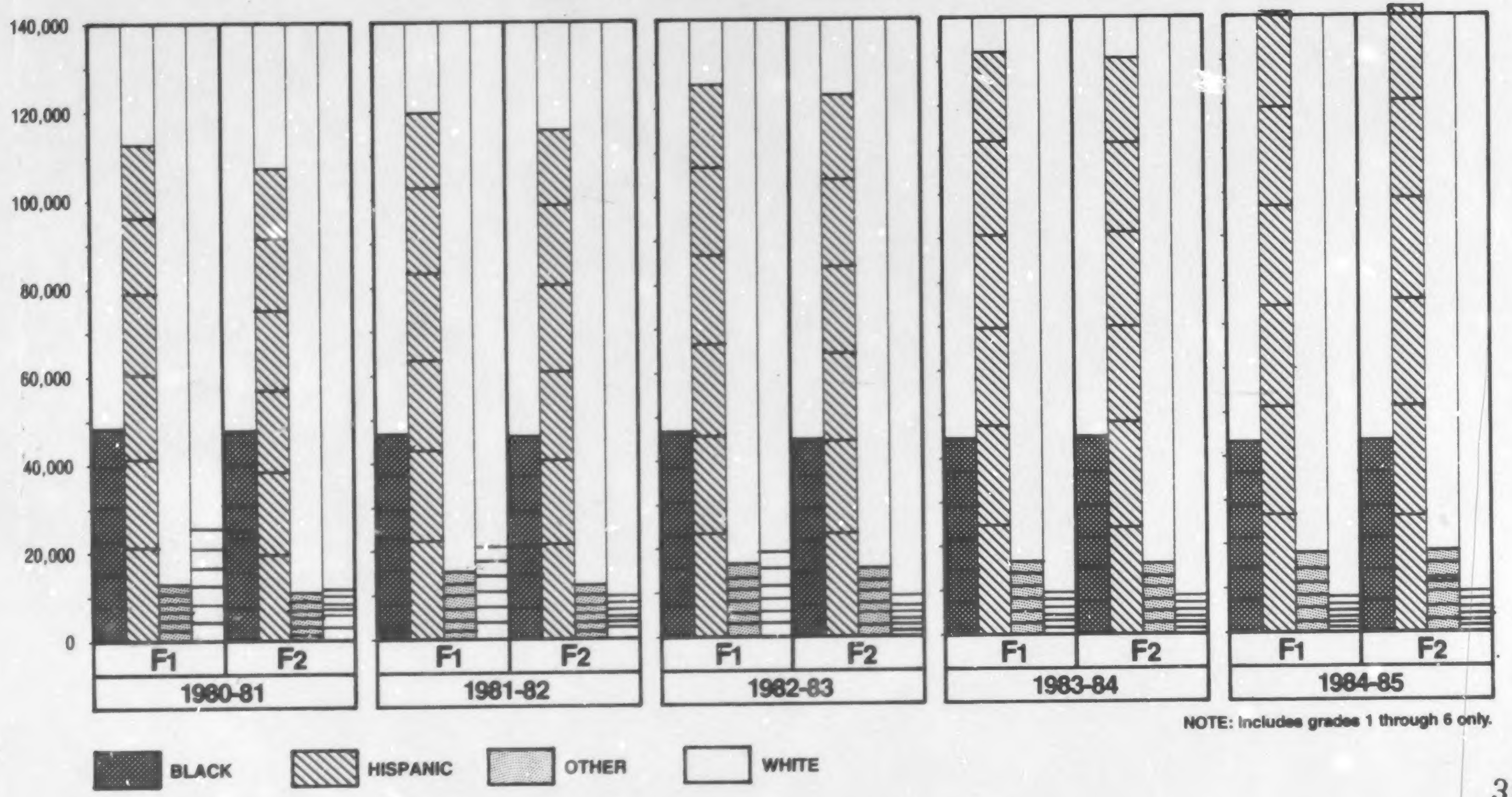


NOTE: Includes grades 1 through 6 only.

CHART 74 A

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



NOTE: Includes grades 1 through 6 only.

CHART 75

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

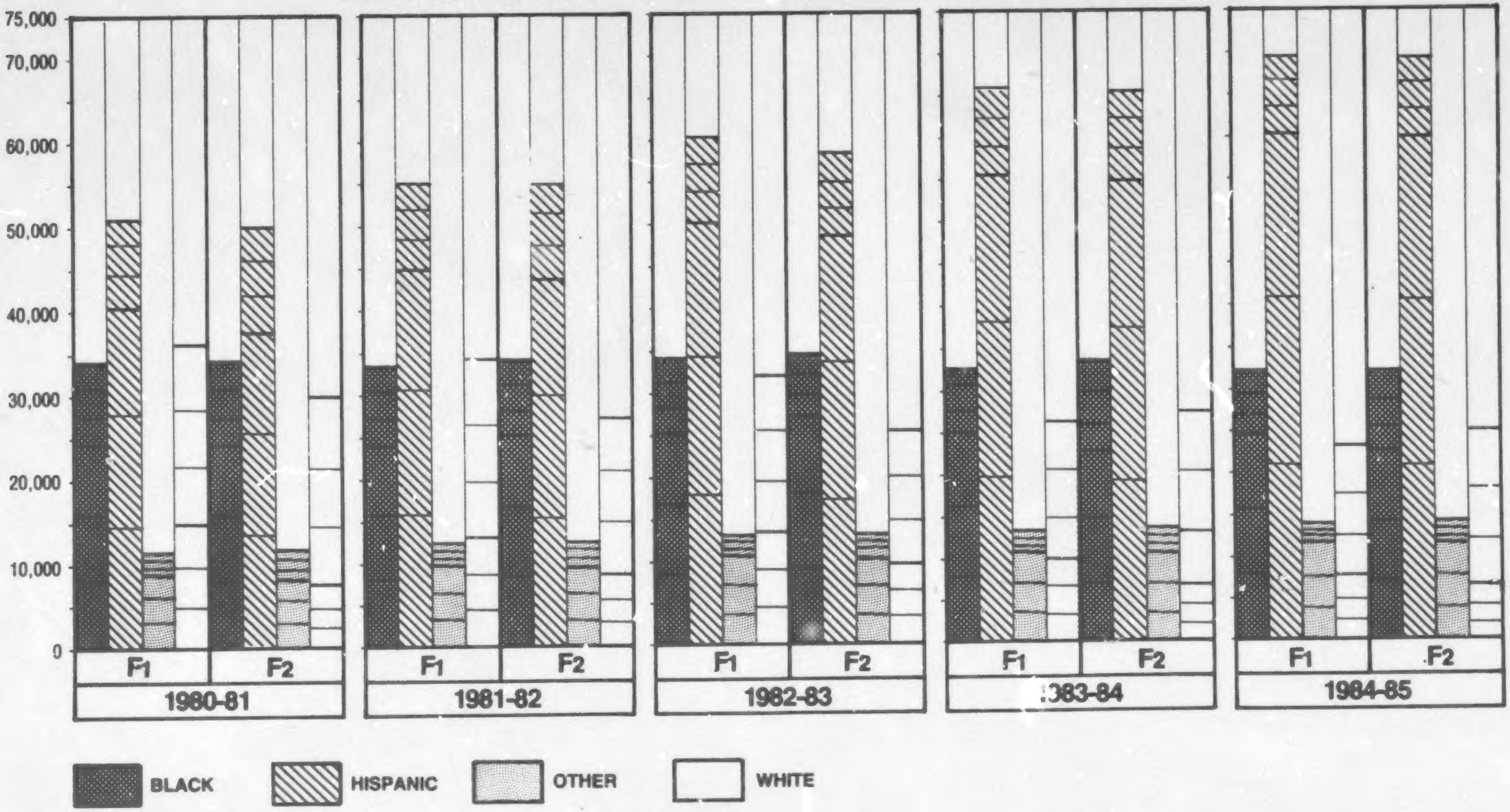


CHART 76

VOLUNTARY/MANDATORY PLANS F1 AND F2
PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985

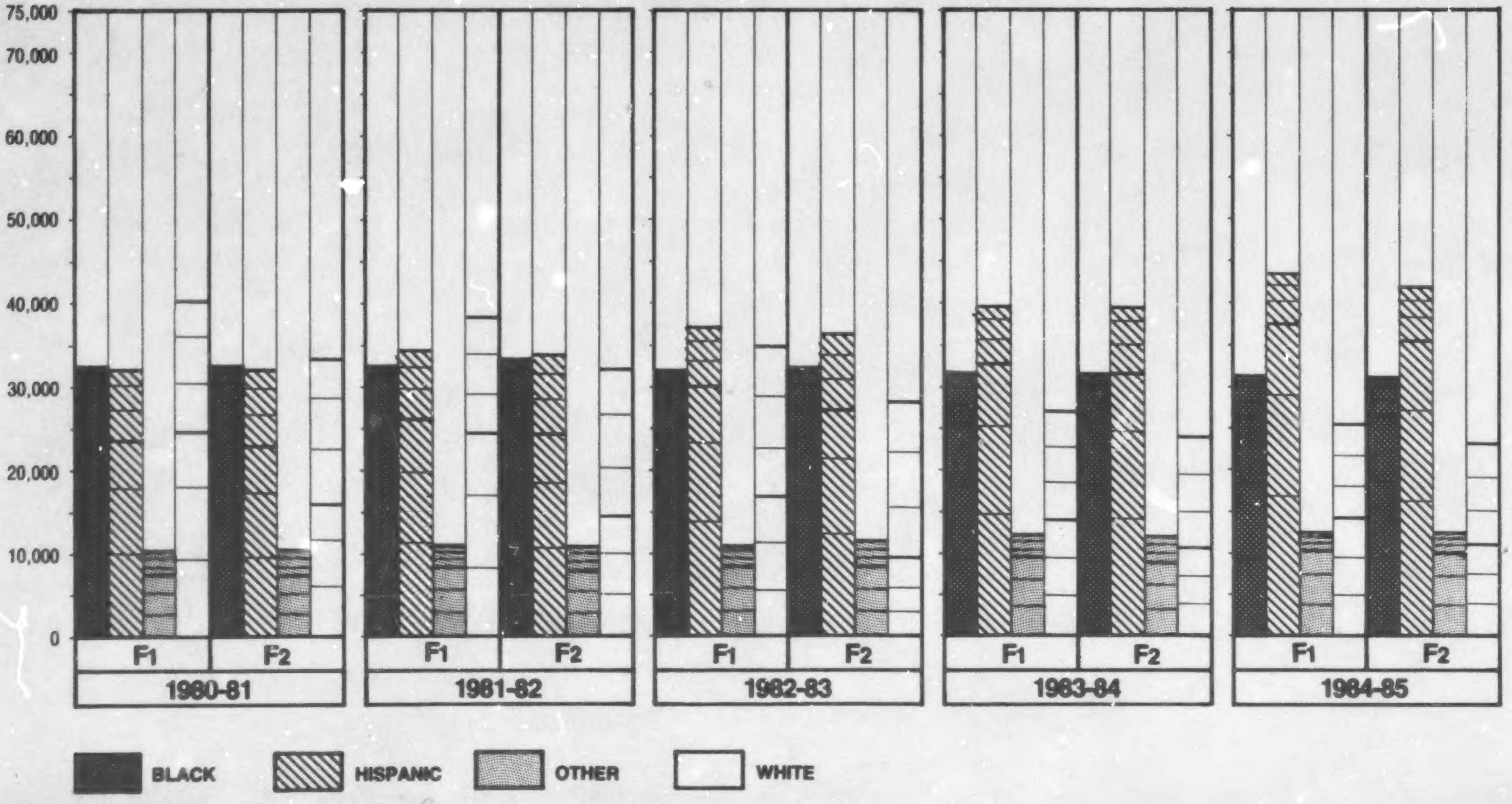


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CHART 77

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
1980-81	8	0	29	1	138	177	53	3	232	225
1981-82	7	0	22	1	128	161	44	45	259	247
1982-83	7	0	12	1	115	134	46	57	280	259
1983-84	1	0	3	3	140	151	38	36	277	269
1984-85	0	0	3	1	123	131	37	37	295	289

NOTE: Magnet programs are counted as separate schools.

CHART 78

VOLUNTARY/MANDATORY PLANS F1 AND F2
PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
1980-81	0	0	5	0	29	35	12	8	46	46
1981-82	0	0	3	0	26	29	14	11	48	49
1982-83	0	0	3	0	23	25	12	11	53	53
1983-84	0	0	2	0	25	29	6	7	57	55
1984-85	0	0	1	0	21	25	8	7	58	58

NOTE: Magnet programs are counted as separate schools.

CHART 79

VOLUNTARY/MANDATORY PLANS F_1 AND F_2
PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	F_1	F_2	F_1	F_2	F_1	F_2	F_1	F_2	F_1	F_2
1980-81	13	12	14	12	21	22	7	8	43	45
1981-82	13	12	14	10	19	22	7	5	45	46
1982-83	12	11	9	6	22	24	7	6	48	47
1983-84	10	10	6	4	23	27	8	10	49	46
1984-85	11	10	5	4	20	22	10	11	50	49

NOTE: Magnet programs are counted as separate schools.

CHART

VOLUNTARY/MANDATORY PLAN F1
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Apperson - Brainard
Frost JHS - Maclay JHS

1980-83 ONLY

Pairs:

Allesandro - Toluca Lake
*Ann - Cheremoya
*Bandini - 7th Street
*Bassett - Noble
*Beachy - Plummer
Beckford - Vaughn
*Bellagio - Virginia
Braddock - Pacific Palisades
Brentwood Science - Broadway
*Broad Avenue - South Shores
*Brockton - Kenter Canyon
Saturn - Warner
Cabrillo - Leland
*Camellia - Chase
*Canoga Park - Hart
Canyon - Richland
Caroldale - Crestwood
Carpenter - Santa Monica
Carthay - Rosewood
*Castle Heights - Queen Anne
Castlebay Lane - Victory
*Chapman - Osage
Charnock - Fairburn
Clifford - Wonderland
*Cohasset - Haddon
Colfax - Delevan
*Crescent Heights - Westwood
*Dahlia Heights - Yorkdale
Dayton - Rio Vista
Dixie Canyon - Ramona
*Dyer - Tulsa
*El Dorado - Herrick
*Eshelman - Normont
*Fernangeles - Gledhill
*15th Street - Taper
*59th Street - Kentwood
Filmore - Vintage
Fries - Lomita Fund Center
Glenwood - Mt. View
*Grant - Saticoy
Area 7 Alternative - Mt. Washington
*Kittridge - Van Nuys
Knollwood - Osceola
Lanai - Sterry
Lankershim - Monlux
*Loyola Village - Paseo Del Rey Fund
Marquez - Westminster
*Mar Vista - Palms
Montague - Prairie
Nestle - Sylvan Park
Anchorage - Short
*Parthenia - Vena
Playa Del Rey - Westpoint Heights
*Point Fermin - 232nd Place
Riverside - Van Ness
Roscoe - Sunland
Roscomare - Shenandoah
Selma- Sherman Oaks
*3rd Street - Wilshire Crest
*Emerson JHS - Webster JHS
*Le Conte JHS - Reed JHS
Mt. Gleason JHS - Pacoima JHS
*Revere JHS - Mark Twain JHS
*Hamilton SHS - University SHS
*Hollywood SHS - No. Hollywood SHS
Kennedy SHS - San Fernando SHS

Clusters:

Pacoima - Anatola - Balboa
Morningside - Andasol - Darby
Telfair - Gault - Van Gogh
San Fernando - Germain - Mayall
Sharp - Dearborn - Kester
O'Melveny - Granada - Lorne
Fenton - El Oro - Pinewood
*San Fernando JHS - Northridge JHS - Porter JHS

Midsites:

Coldwater Canyon - Alexandria - Lemay
Burbank - Emelita - Lockwood
Oxnard - Hesby - Rosemont
Millikan JHS - De Portola JHS - Virgil JHS

1983-85 ONLY

Pairs:

Anatola - Saticoy
Andasol - Osceola
Arminta - Prairie
Balboa - Harding
Beachy - Germain
Beckford - Dyer
Bertrand - Kittridge
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calvert - Tulsa
Canfield - Warner
*Cantara - Fullbright
Canterbury - Topeka Drive
Canyon - Mar Vista
Carpenter - Selma
Castlebay Lane - Hubbard
Collier - Van Nuys
Darby - Gridley
Dearborn - Herrick
*Devonshire - Rinaldi
Dixie Canyon - Melrose
El Dorado - Knollwood
El Oro - Stonehurst
Emelita - Vena
*Enadia - Highlander
Encino - Sylvan Park
*Erwin - Fernangeles
Eshelman - Lomita Fund Center
Fair - Sunland
Filmore - Valley Alternative
Garden Grove - Parthenia
Gardner - Wonderland
Glenwood - Pinewood
Hancock Park - Rosewood
Hart - Nevada
*Haskell - Superior
Hazeltine - Vanalden
Hesby - Valley View
Kenter Canyon - Marquez
Lanai - Richland
*Langdon - Melvin
Lankershim - Vintage
Laurel - Roscomare
Leland - South Shores
Lemay - Ranchito
Limerick - Noble
*Mt. View - Plainview
Napa - Sunny Brae
Newcastle - Plummer
Anchorage - Coeur D'Alene
Oxnard - Riverside
Sylmar - Van Gogh
Columbus JHS - Northridge JHS
De Portola JHS - Van Nuys JHS
*Fulton JHS - Sequoia JHS
*Henry JHS - Porter JHS
Lawrence JHS - San Fernando JHS
Mt. Gleason JHS - Sun Valley JHS
*Nobel JHS - Sepulveda JHS
*Birmingham SHS - Van Nuys SHS
Francis Poly SHS - Verdugo Hills SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Hollywood SHS

Midsites:

Camellia - Tarzana - Cohassett
Capistrano - Vaughn - Bassett
Chatsworth - Morningside - Granada
Grant - Serrania - Kester
Haddon - Nestle - Valerio
Oso - Pacoima - Lorne
Santa Monica - Wilbur - Chandler
Hughes JHS - Le Conte JHS - Millikan JHS
*Chatsworth SHS - No. Hollywood SHS - Kennedy SHS

* means grouping would never be activated during projection period.

CHART 81

VOLUNTARY/MANDATORY PLAN F2
LIST OF PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-83

None

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Darby - Filmore

1980-83 ONLY

Pairs:

Albion - Dixie Canyon
Allesandro - Tulsa
Ambler - Paseo Del Rey Fund.
Anatola - Brainard
*Ann - Chase
Annandale - Kester
Apperson - Sierra Vista
Atwater - Vintage
Balboa - Camellia
*Bandini - 7th Street
*Bassett - Dorris
*Beachy - Calahan
Beckford - Micheltorena
*Bellagio - 32nd Street
*Bertrand - Van Nuys
Blythe - Lockwood
*Bonita - Westport Heights
Braddock - Lanai
Brentwood Science - Broadway
*Broad Avenue - Point Fermin
*Brockton - Kenter Canyon
Buchanan - Riverside
Saturn - Nestle
*Bushnell - Cheremoya
Cabrillo - Leland
Cahuenga - Wilbur
*Canoga Park - Hart
Canyon - Loyola Village
Capistrano - Noble
*Caroldale - South Shores
Carpenter - Soto
Carthay Center - Rosewood
*Castle Heights - 42nd Street
Castlebay Lane - Ramona
*Chapman - Osage
*Charnock - Oakdale Avenue
Chatsworth - Montague
*Cimarron - Westwood
*Clifford - Cohasset
Colfax - Rockdale
Coliseum - Encino
Collier - Crescent Heights
Collins - Selma
Crestwood - 232nd Place
*Dahlia Heights - Tweedy
Dayton - Prairie
Dearborn - Dyer
Delevan - Knollwood
Dolores - Fairburn
*El Dorado - Herrick
El Oro - Osceola
*Elysian - Rhoda
Emelita - Virginia
*Eshelman - Normont
Fenton - Nevada
Fernangeles - Topeka Drive
*15th Street - Taper
59th Street - Sherman Oaks
Fletcher - Toluca Lake
Fries - Lomita Fund Center
Fullbright - Sterry
Garvanza - Pinewood
Gault - Playa Del Rey
Germain - Vaughn
*Gledhill - Sylvan Park
Glen Alta - Sunland
Glenfeliz - Wonderland
Glenwood - Lorne
Grant - Serrania
Area 7 Alternative - Ritter
Hesby - Yorkdale
*Kentwood - 186th Street
*Kittridge - Van Ness
*Lankershim - Shirley
*Latona - Saticoy
Lemay - Shenandoah
Limerick - O'Melveny
Marquez - Queen Anne
*Mar Vista - Vernon
Mayall - Roscoe
Mayberry - Vanalden
Monlux - Mt. Washington
Mt. View - San Pascual
Multnomah - Rio Vista
Newcastle - Rosemont
Anchorage - Van Deene
Pacific Palisades - Short
Palms - Valley Alternative
*Parthenia - Vena
*Plummer - Toland Way
*Richland - Tarzana
Roscomare - Solano
Santa Monica - Sunny Brae
*3rd Street - Wilshire Crest
Topanga - Westminster
Van Gogh - Victory

Vine - Warner
Bancroft JHS - Frost JHS
Burbank JHS - Mt. Gleason JHS
*Carnegie JHS - Emerson JHS
Columbus JHS - San Fernando JHS
De Portola JHS - Marina Del Rey JHS
*Henry JHS - Le Conte JHS
*Irving JHS - Reed JHS
Lawrence JHS - Maclay JHS
*Mt. Vernon JHS - Revere JHS
*Nobel JHS - Pacoima JHS
Palms JHS - Sequoia JHS
*Porter JHS - Mark Twain JHS
*Sutter JHS - Webster JHS
*Birmingham SHS - Fairfax SHS
*Carson SHS - University SHS
Franklin SHS - Verdugo Hills SHS
Grant SHS - Lincoln SHS
*Hamilton SHS - Palisades SHS
*Hollywood SHS - No. Hollywood SHS
Kennedy SHS - San Fernando SHS
*Marshall SHS - Monroe SHS

Clusters:

Pacoima - Calabash - Reseda
Telfair - Andasol - Hamlin
Alexandria - Garden Grove - Melvin
Haddon - Devonshire - Oso
Morningside - Granada - Winnetka
San Fernando - Superior - Woodlake
Sharp - Calvert - Woodland Hills

Midsites:

Burbank - Cortez - Platt Ranch
Valerio - Enadia - Hobart
Hazeltine - 1st Street - Highlander
Chandler - Haynes - Union

Langdon - Hoover - Justice
Erwin - Lockhurst - Utah
Lassen - Logan - Pomelo
Liggett - Loreto - Welby
Millikan JHS - Adams JHS - Hughes JHS
Mulholland JHS - Hale JHS - Pastuer JHS
Sepulveda JHS - King JHS - Parkman JHS
Fulton JHS - Northridge JHS - Virgil JHS
Van Nuys SHS - Dorsey SHS - Reseda SHS
Francis Poly SHS - Granada Hills SHS - Los Angeles SHS

1983-85 ONLY

Pairs:

Anatola - Langdon
Andasol - Osceola
Apperson - Rockdale
Arminta - Vintage
Balboa - Tulsa
Beachy - Topeka Drive
Beckford - Gridley
Beethoven - Marquez
Brainard - Sunland
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calabash - Valley View
Calahan - Melvin
Calvert - Vena
Canfield - Warner
*Cantara - Fullbright
Canterbury - Limerick
Canyon - Kenter Canyon
Capistrano - Ranchito
Carpenter - Oxnard
Castlebay Lane - Dyer
Charnock - Nestle
Chatsworth - San Fernando
Colver - Hesby
Collier - Richland
Collins - Hamlin
Dayton - Wilbur
Dearborn - Stonehurst
Dixie Canyon - Gardner
El Dorado - Knollwood
El Oro - Herrick
Emelita - Van Nuys
*Enadia - Welby
Encino - Palms
*Erwin - Roscoe
Eshelman - Lomita Fund Center
Fernangeles - Germain
Garden Grove - Parthenia
Glenwood - Pinewood
Grand View - Lanai
Hancock Park - Roscomare
Harding - Vanalden
Hart - Nevada
Haskell - Platt Ranch
Haynes - Justice
Hazeltine - Valley Alternative
Highlander - Rinaldi
Kittridge - Woodland Hills
Lankershim - Riverside
Laurel - Wonderland
Leland - South Shores
Lemay - Saticoy
Mar Vista - Anchorage
Melrose - Rosewood
*Mt. View - Plainview
Napa - Sunny Brae
Plummer - Prairie
Pomelo - Reseda
Coeur D'Alene - Topanga
Selma - Serrania

Sylmar - Van Gogh
De Portola JHS - Van Nuys JHS
Frost JHS - Porter JHS
Hale JHS - Sutter JHS
Lawrence JHS - Sepulveda JHS
Mt. Gleason JHS - Sun Valley JHS
Northridge JHS - Parkman JHS
*Canoga Park SHS - Monroe SHS
Chatsworth SHS - Francis Poly SHS
El Camino Real SHS - Palisades SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Van Nuys SHS
Hamilton SHS - Reseda SHS
Holl[illegible]ood SHS - Taft SHS
No. Hollywood SHS - Verdugo Hills SHS

Midsites:

Birmingham SHS - El Camino Real SHS - Fairfax SHS

* means grouping would never be activated during projection period.

CHART 82

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

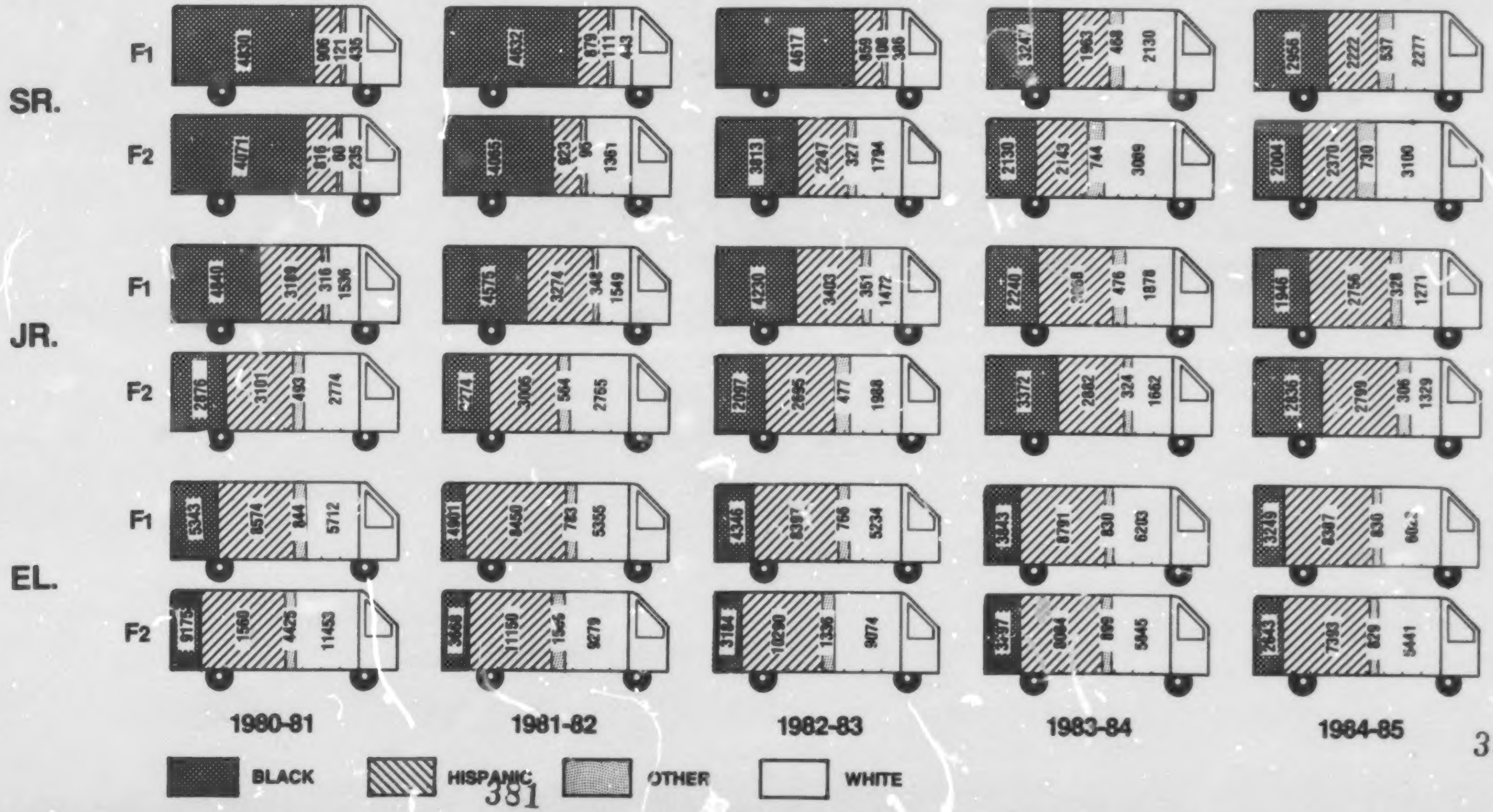


CHART 83

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

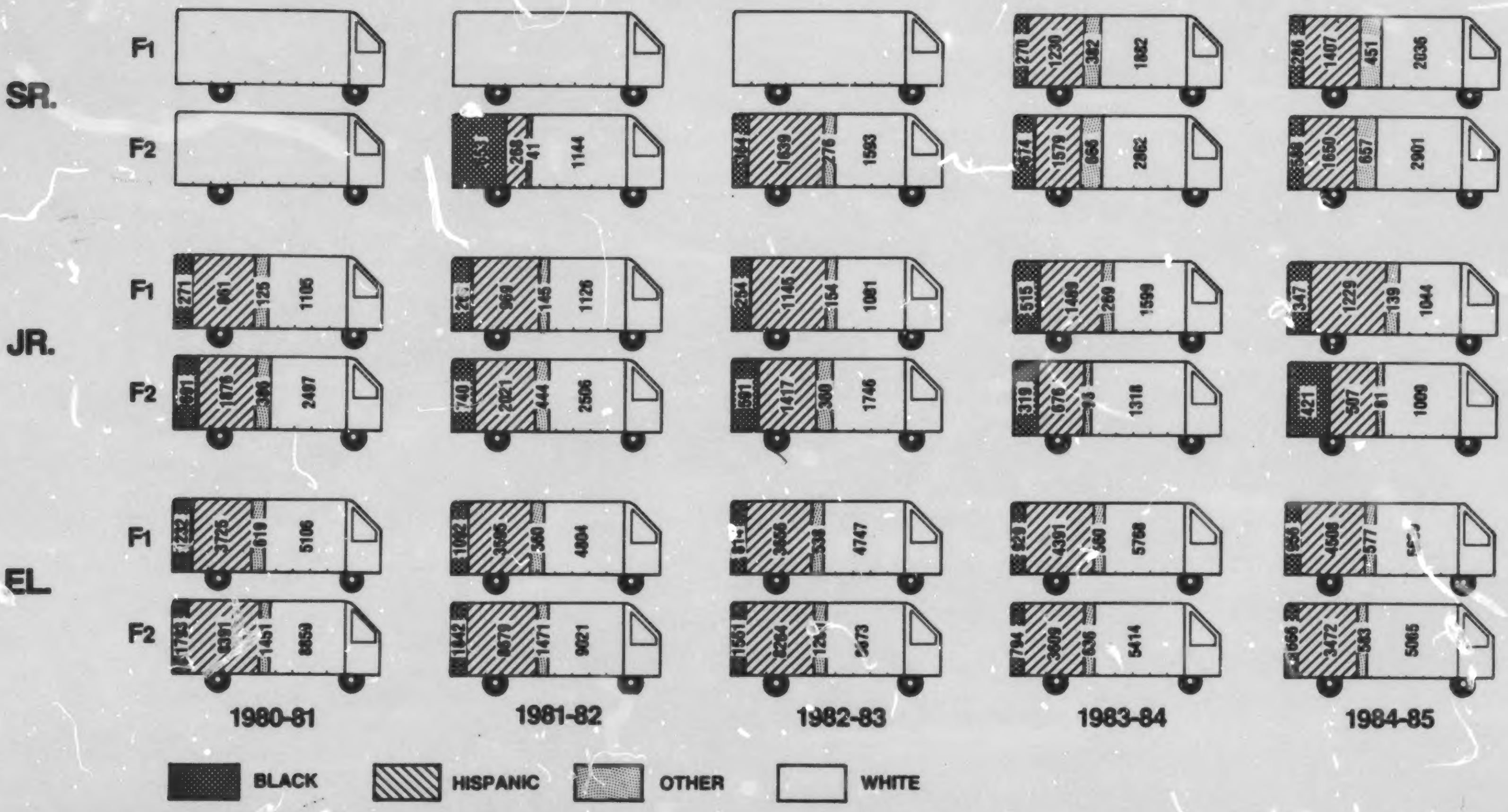


CHART 84

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

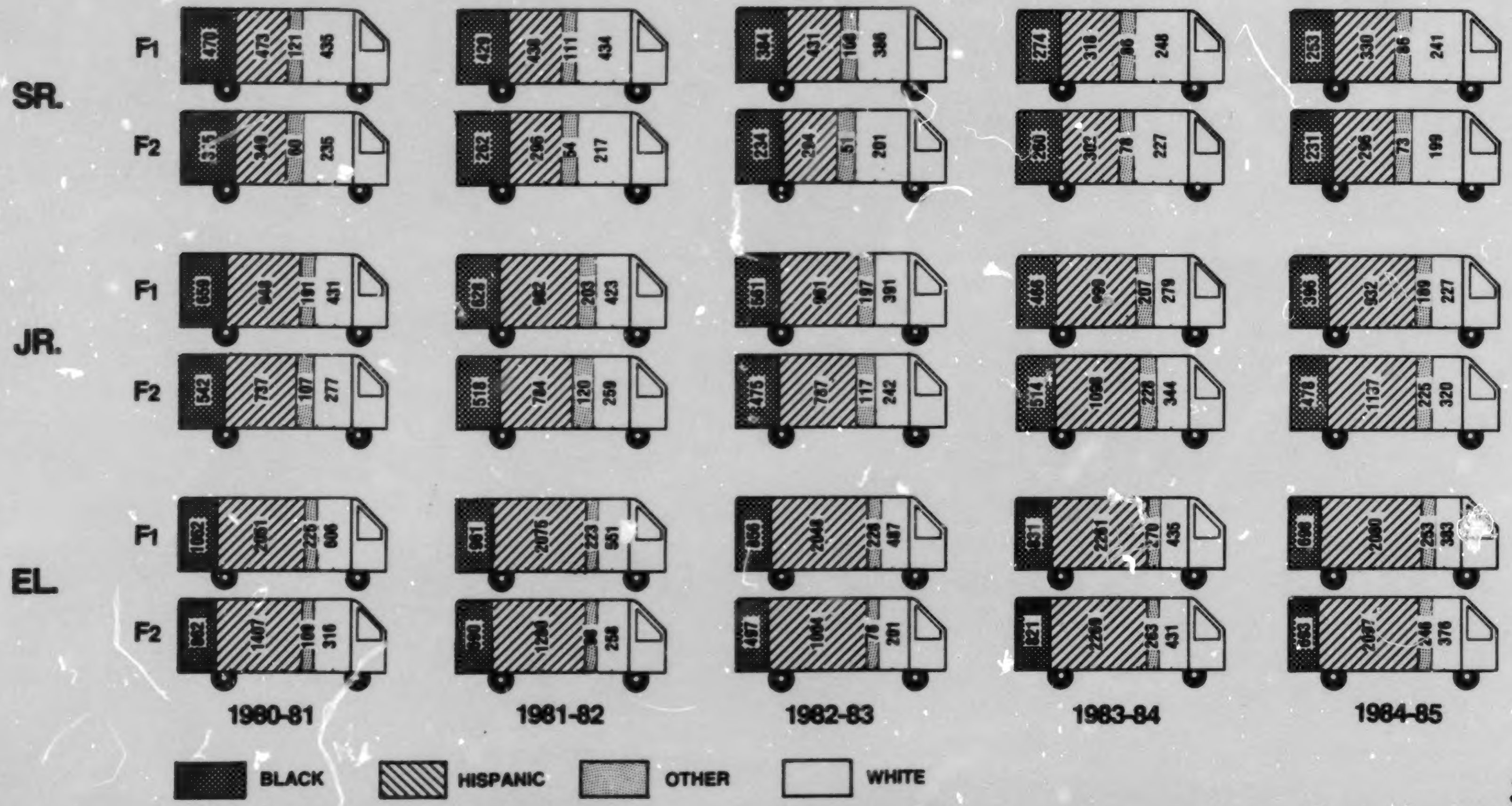


CHART 85

VOLUNTARY/MANDATORY PLANS F1 AND F2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED UNDER PWT PROGRAM, BY RACE/ETHNICITY AND LEVEL, 1980-1985

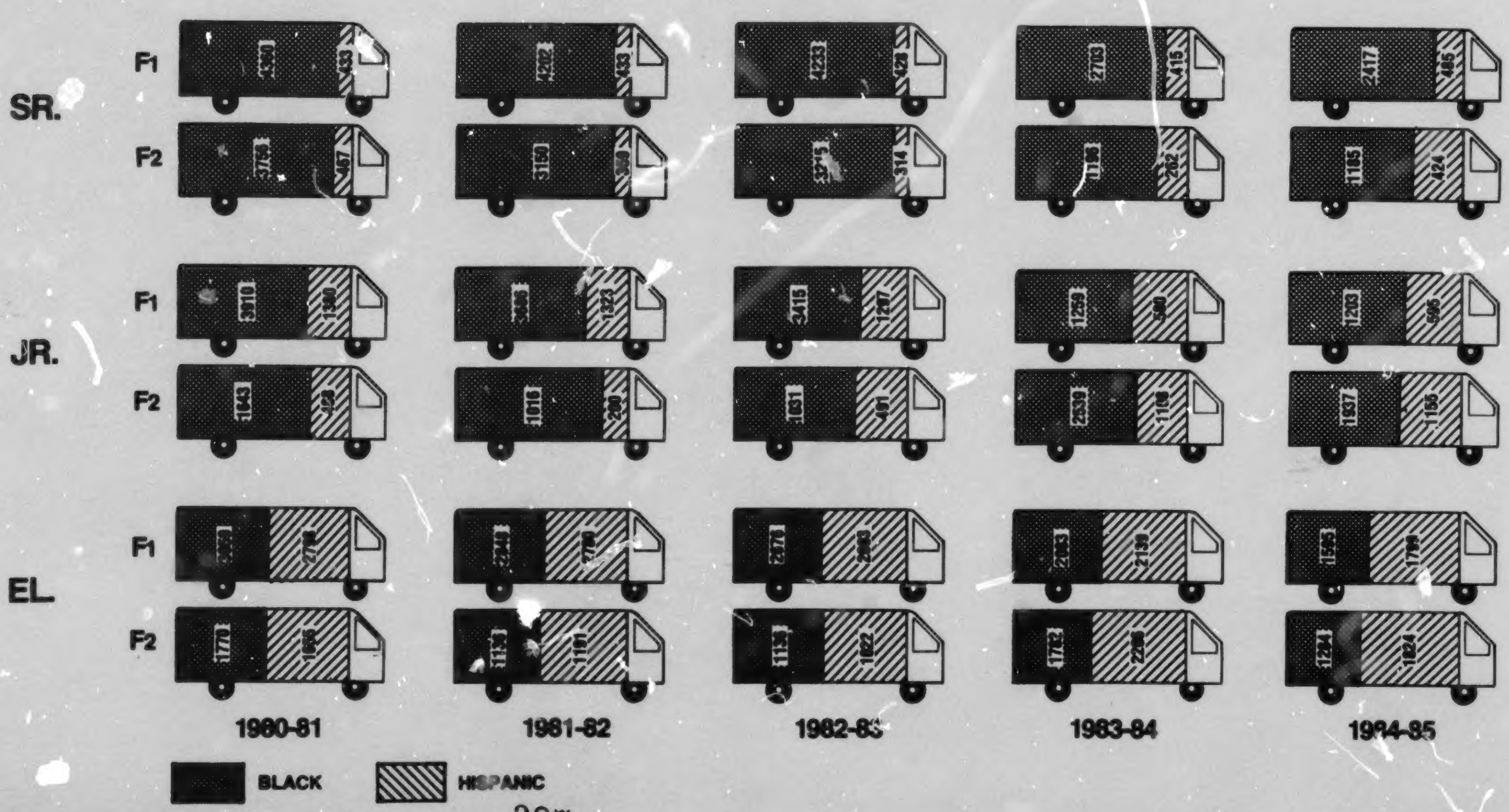
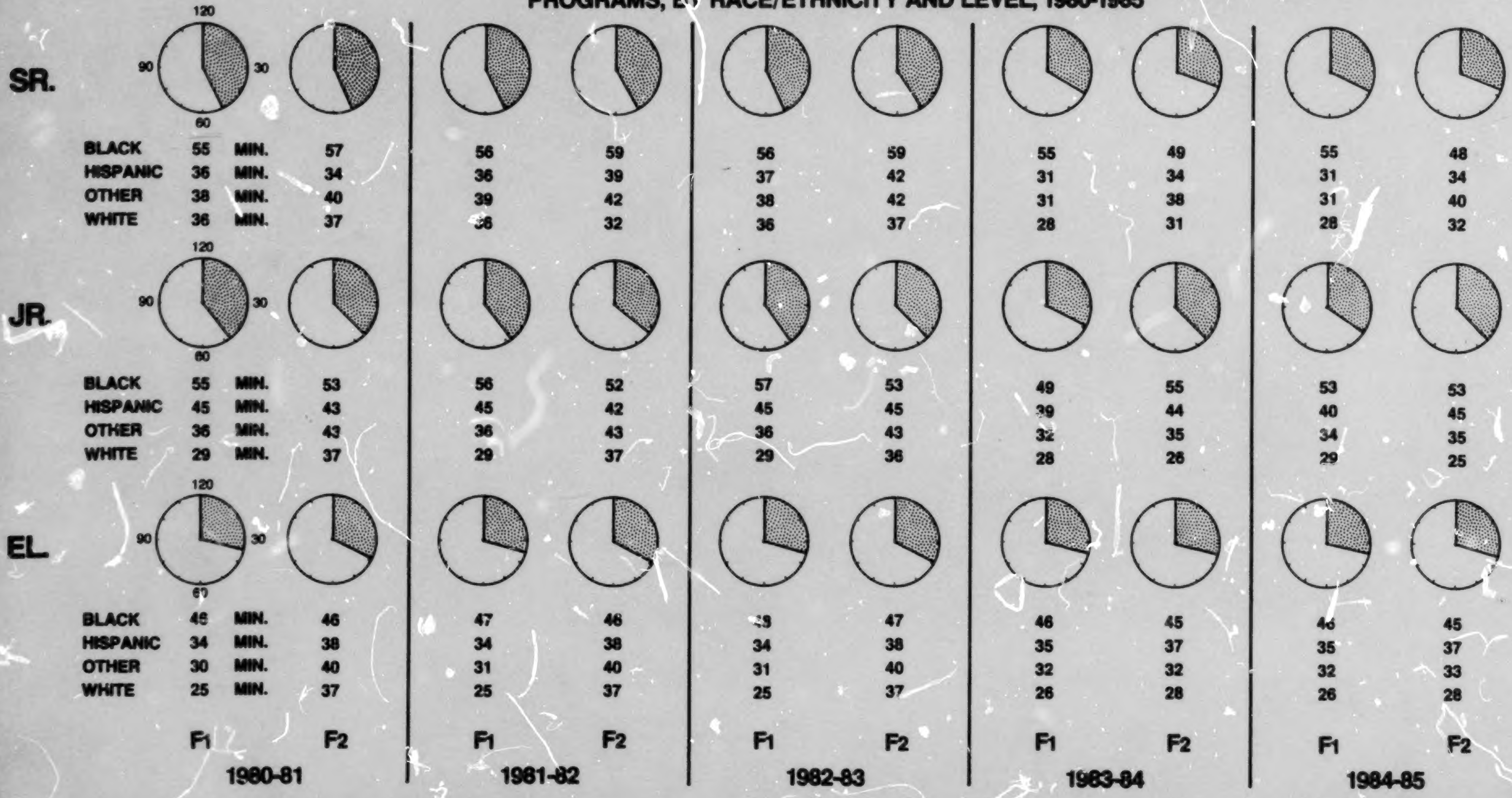


CHART 86

VOLUNTARY/MANDATORY PLANS F1 AND F2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

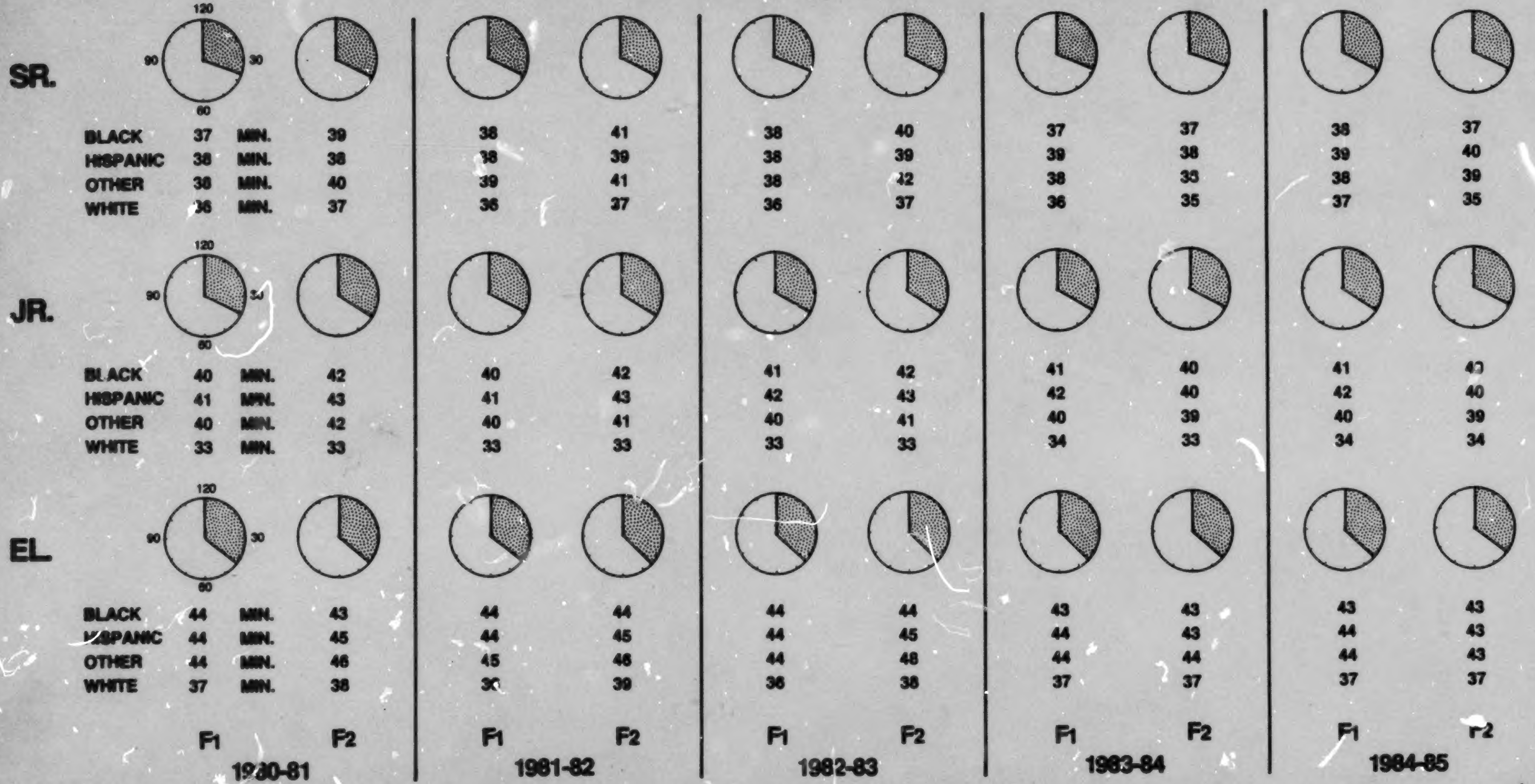


		1980-81		1981-82		1982-83		1983-84		1984-85	
		F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
SR.	BLACK	55 MIN.	57	56	59	56	59	55	49	55	48
	HISPANIC	36 MIN.	34	36	39	37	42	31	34	31	34
	OTHER	38 MIN.	40	39	42	38	42	31	38	31	40
	WHITE	36 MIN.	37	36	32	36	37	28	31	28	32
JR.	BLACK	55 MIN.	53	56	52	57	53	49	55	53	53
	HISPANIC	45 MIN.	43	45	42	45	45	39	44	40	45
	OTHER	36 MIN.	43	36	43	36	43	32	35	34	35
	WHITE	29 MIN.	37	29	37	29	36	28	26	29	25
EL.	BLACK	46 MIN.	46	47	46	49	47	46	45	46	45
	HISPANIC	34 MIN.	38	34	38	34	38	35	37	35	37
	OTHER	30 MIN.	40	31	40	31	40	32	32	32	33
	WHITE	25 MIN.	37	25	37	25	37	26	28	26	28

CHART 87

VOLUNTARY/MANDATORY PLANS F1 AND F2

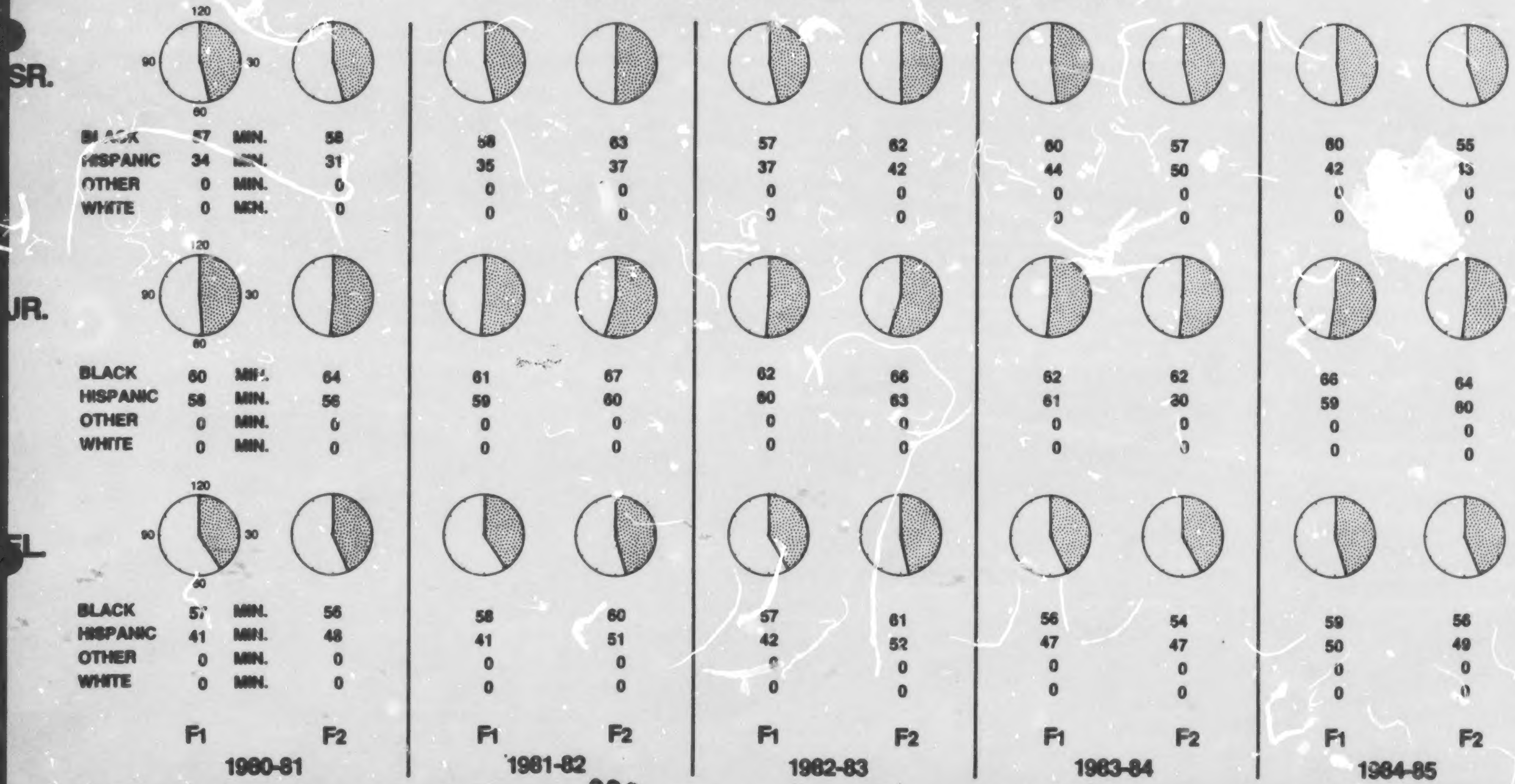
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED TO MAGNET SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 F1		1980-81 F2	1981-82 F1	1981-82 F2	1982-83 F1	1982-83 F2	1983-84 F1	1983-84 F2	1984-85 F1	1984-85 F2
SR.	BLACK	37	MIN.	39	38	41	38	40	37	37	38	37
	HISPANIC	38	MIN.	38	38	39	38	39	39	38	39	40
	OTHER	38	MIN.	40	39	41	38	42	38	33	38	39
	WHITE	36	MIN.	37	36	37	36	37	36	35	37	35
JR.	BLACK	40	MIN.	42	40	42	41	42	41	40	41	40
	HISPANIC	41	MIN.	43	41	43	42	43	42	40	42	40
	OTHER	40	MIN.	42	40	41	40	41	40	39	40	39
	WHITE	33	MIN.	33	33	33	33	33	34	33	34	34
EL.	BLACK	44	MIN.	43	44	44	44	44	43	43	43	43
	HISPANIC	44	MIN.	45	44	45	44	45	44	43	44	43
	OTHER	44	MIN.	46	45	46	44	48	44	44	44	43
	WHITE	37	MIN.	38	36	39	36	38	37	37	37	37

CHART 88

VOLUNTARY/MANDATORY PLANS F1 AND F2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED UNDER PWT PROGRAM BY RACE/ETHNICITY AND LEVEL, 1980-1985



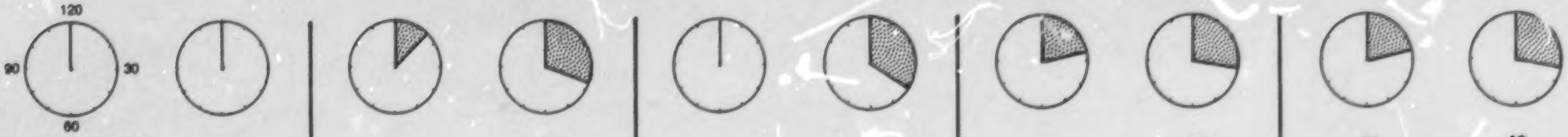
		1980-81 F1		1980-81 F2	1981-82 F1	1981-82 F2	1982-83 F1	1982-83 F2	1983-84 F1	1983-84 F2	1984-85 F1	1984-85 F2
SR.	BLACK	57	MIN.	58	58	63	57	62	60	57	60	55
	HISPANIC	34	MIN.	31	35	37	37	42	44	50	42	43
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
JR.	BLACK	60	MIN.	64	61	67	62	66	62	62	66	64
	HISPANIC	58	MIN.	56	59	60	60	63	61	30	59	60
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0
EL.	BLACK	57	MIN.	56	58	60	57	61	56	54	59	56
	HISPANIC	41	MIN.	48	41	51	42	52	47	47	50	49
	OTHER	0	MIN.	0	0	0	0	0	0	0	0	0
	WHITE	0	MIN.	0	0	0	0	0	0	0	0	0

CHART 89

VOLUNTARY/MANDATORY PLANS F1 AND F2

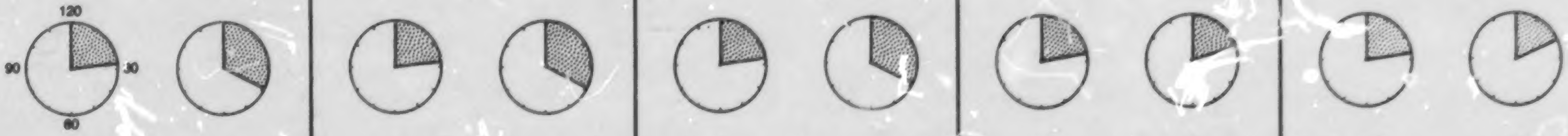
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

SR.



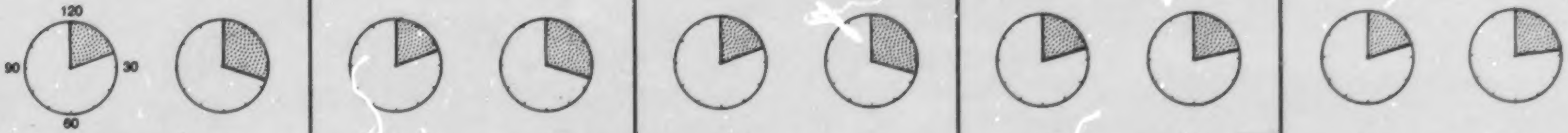
	1980-81 F1	1980-81 F2	1981-82 F1	1981-82 F2	1982-83 F1	1982-83 F2	1983-84 F1	1983-84 F2	1984-85 F1	1984-85 F2
BLACK	0 MIN.	0	14	45	0	42	29	38	29	40
HISPANIC	0 MIN.	0	16	42	0	43	25	30	25	31
OTHER	0 MIN.	0	11	43	0	42	29	38	29	40
WHITE	0 MIN.	0	16	31	0	38	27	31	27	32

JR.



	1980-81 F1	1980-81 F2	1981-82 F1	1981-82 F2	1982-83 F1	1982-83 F2	1983-84 F1	1983-84 F2	1984-85 F1	1984-85 F2
BLACK	24 MIN.	37	24	38	24	37	24	24	25	22
HISPANIC	30 MIN.	40	30	40	30	40	28	26	29	23
OTHER	30 MIN.	43	30	43	30	43	26	25	26	22
WHITE	27 MIN.	38	27	38	28	36	27	24	27	22

EL.



	1980-81 F1	1980-81 F2	1981-82 F1	1981-82 F2	1982-83 F1	1982-83 F2	1983-84 F1	1983-84 F2	1984-85 F1	1984-85 F2
BLACK	22 MIN.	38	22	38	21	37	25	26	25	27
HISPANIC	23 MIN.	36	23	35	23	35	25	27	25	28
OTHER	25 MIN.	40	26	39	26	40	26	27	26	29
WHITE	23 MIN.	37	23	36	23	37	25	27	25	27

VI. MULTI-ETHNIC PROTOTYPE

Definition

The objective of this prototype is desegregation of all LAUSD schools within (or as close to within as is mathematically possible) specified maximum and minimum percentages of pupils in each school from each of the four racial/ethnic categories used in these simulations. For bi-ethnic schools, the minimum share for each race/ethnicity is the familiar 40% of each. For schools in which more than two races/ethnicities are involved, the upper and lower percentage limits are as follows:

Group	Minimum %	Maximum %
Black	10	40
Hispanic	20	50
Other Minority	0	30
White	20	40

Programmatic Instruments Employed

The variations of this prototype that have been simulated in this series employ no voluntary desegregation instruments. All assignments are assumed to be mandatory.

The basic operation of the model in projecting the results of this prototype, as described in detail in Part II, is to divide District schools into the seven bi-ethnic and tri-ethnic regimes that can be formed by combining the groups. These are as follows:

-- Black-Hispanic
-- Black-Other Minority
-- Black-White
-- White-Hispanic
-- White-Other Minority
-- Hispanic-Other Minority
-- Multi-ethnic

The model then seeks to bring each school to the regime to which it is statistically "closest," while minimizing pupil dislocation and being certain that the remaining pool of yet-to-be-assigned pupils is itself within the maxima and minima, so that all schools can eventually be desegregated. The model also seeks to minimize travel time. It applies no preference to any racial/ethnic combination over any other. If the available number of pupils of any race/ethnicity turns out to be too small to permit the multi-ethnic minimum to be met in every multi-ethnic school, the model creates the maximum possible number of schools that can meet the minimum, leaving the others Segregated. For comparison, we can also later present the results if the model spreads the available pupils among the schools in below-minimum proportions rather than accept some schools in which no pupils of the scarce race/ethnicity are enrolled, unless it is permissible in the specified minima to allow that group's share to fall to zero.

Constraints and Specific Decision Rules

The general decision rules built into the sub-model constructed for this prototype are described in Part II. The reader should be reminded, however, that pupil assignments are made here -- as in the other prototypes that [illegible] mandatory instruments -- at two points during the projection period, in the spring of 1980 and in the spring of 1983. So rapid is the underlying rate of demographic change that making reassignments every year would result in disjointed educational experiences for a very substantial number of pupils.

This prototype imposes no limitation on the number of grades involved, except that kindergarteners are not involved. Kindergarteners are, however, counted in the total school population. It imposes no limits on travel time, although, as noted above, it seeks to minimize dislocation and travel time while meeting the specified racial/ethnic balance proportions. No pupils of one race/ethnicity are allowed to be transported out of a school to make room for other pupils of the same group. Finally, the model adjusts for projected pupil flight (see discussion below), altering the pattern of actual transportation so as to take into account the changes in pupil participation that result from the first assignment (and announcement) of mandatory transportation.

Special Problems in Dealing with Flight

Attempts to project the effects of the multi-ethnic prototype encounter the immediate dilemma that pupil assignments can never equal pupil participation if one assumes any flight at all. The chain of compensatory actions is theoretically endless. If the model assumes that LAUSD announces original pupil assignments, waits for flight to occur, then adjusts assignments (presumably after school has begun), the flight sub-model then projects a new pattern of flight resulting from the new assignments. If still another round of new assignments is made, the same scenario occurs. In all events, therefore, the final assignments will not match actual pupil participation, and the difference between the two will be the extent of pupil flight. The only question at issue is how many assignment-flight rounds the model should assume would occur.

Administrative reality must also be considered in this decision. It is not easy to imagine a sequence in which the District announces pupil assignments in the spring, allows them to be carried out in the fall, determines who is missing, and then issues entirely new assignments which result in many pupils being sent to entirely different schools. To add another dimension of complexity, in the multi-ethnic model every school is involved in an intricate sender-receiver network that ultimately involves every other school. If flight reduces the number of pupils who can be sent from one school, that adjustment (and all like it) must ripple through the entire system or the delicate balance that yields Desegregated schools will be upset. However, these adjustments tend to generate small cuts in the number of pupils, particularly Minorits pupils, who are transported from a given school, and these non-transported pupils taken together -- no matter how few of them there are in each school -- can result in deletion of a large number of schools from the "Desegregated" category created by the objective of the prototype.

Take, for example, a school containing 100 Other Minority pupils, all of whom were scheduled in the original assignments to be transported to another school, leaving their original school entirely Black-Hispanic and Desegregated by the bi-ethnic criterion. As a result of flight, only 80 of these Other Minority pupils are available to be transported. They are duly sent, in order to insure that the sending school becomes Desegregated. However, the loss of the 20 absentees may make it impossible, by a very small margin, for the receiving school to fit within the "Desegregated" criteria. The same problem can arise from demographic growth in enrollment. Consider, for example, a school that is scheduled to send 10 White pupils, based on the spring assignments (which are made according to current-year enrollment, not the expected enrollment in the fall). Because of demographic growth, 12 such pupils actually turn up, but only 10 can be sent because of the receiving school balance. Two pupils are left behind. These two White pupils, in an otherwise entirely Black-Hispanic school are enough, by a strict application of the above definition, to make that school multi-ethnic. If so, it cannot meet the desegregation criteria (the minimal percentage shares listed above) established for multi-ethnic schools. Thus, though it may contain 500 Black pupils, 500 Hispanics, and only two Whites, it shows in a strictly bounded projection as just as Segregated as if it were entirely composed of members of a single race/ethnicity.

The flight sub-model used in these simulations, which is drawn from the first two years of LAUSD experience with mandatory desegregation, projects that a substantial amount of flight would be associated with this prototype. Assumptions with regard to these questions therefor become critical to the outcome of the projections. These assumptions can be varied in later simulations. For this series, however, the following has been assumed:

-- The District would make only one set of announced pupil assignments, which, if fulfilled, would make all schools Desegregated by the above definition. It would then adjust the system to make the best of the post-flight situation by deleting or adding pupils within the original transportation assignments rather than make new school assignments after the first week of school.

-- A bit of "leeway" would be permitted in the definition of a Desegregated school in order to avoid the most obvious distortions resulting from a small over- or under-fulfillment of assignments of the kinds discussed above.

The "leeway" permitted in the projections shown in the Charts in this Part of the Report is ten pupils. The text also reports on the effects if virtually no leeway were permitted or if leeway were expanded to 20 pupils. As will be shown, the difference in the number of schools and pupils thereby counted as "Desegregated" is dramatic, although the transportation figures do not change at all.

Multi-ethnic Variation

Segregated/Desegregated Schools

Chart 90 shows the number of schools that would fall into the "Segregated" and "Desegregated" categories under this variation during the period 1980-85. The numbers reflect the adjusted actual results that would occur after original assignments which, if there were no flight/demography effects, would desegregate all schools by the definition used in this prototype. Chart 91 divides the "Desegregated" category into the seven racial/ethnic regimes contained in the model. In brief:

Under the "leeway rule" (discussed above) which permits up to ten pupils more or less than the strict definition to be present in a Desegregated school, the Plan would result in 273 (or 45%) Desegregated schools in 1980-81. (If the leeway rule were reduced to two, this total would be 134 schools (or 22%); if it were increased to 20, the total would be 392 (or 65%.)

-- Among these Desegregated schools in 1980-81, the Plan (with the leeway rule at 10) would yield 165 bi-ethnic and 108 multi-ethnic schools. Of the bi-ethnic, 57 (or 35% would be Black-Hispanic, 24 (or 15%) would be Black-White, 69 (or 42%) would be Hispanic-White, three (or 2%) would be Black-Other Minorities, three (or 2%) would be Hispanic-Other Minorities, and two (or (1%) would be White-Other Minorities.

-- Under the leeway rule of ten, the Plan would result in 328 (or 55%) Segregated schools in 1980-81.

-- In 1984-85, again under the leeway rule of ten, the Plan would produce 152 (or 25%) Desegregated schools. (If the leeway rule were reduced to two, this total would be 85 schools (or 14%); if it were increased to 20, the total would be 237 (or 39%.)

-- Among the Desegregated schools in 1984-85 (with the leeway rule at ten), the Plan would yield 91 bi-ethnic and 61 multi-ethnic schools. Of the bi-ethnic, 53 (or 58%) would be Black-Hispanic, four (or 4%) would be Black-White, 28 (or 29%) would be Hispanic-White, two (or 2%) would be Black-

Other Minorities, four (or 4%) would be Hispanic-Other Minorities, and none would be White-Other Minorities.

-- Under the leeway rule of ten, the Plan would result in 449 (or 75%) Segregated schools in 1984-85.

Overall, the broadest finding of the simulation is that, even permitting a ten pupil deviation from the definition of a "Desegregated" school, the Plan would result in 45% of the schools falling into that category and only 25% of them in it in 1984-85. The combination of large-scale pupil flight and underlying demographic change would result in fewer than half of the schools actually being desegregated (as all would have been without these factors) in the first year, and both the absolute number and the percentage share would fall sharply in the ensuing two years. In the fourth year, following the 1983 reassignment, the number of Desegregated schools would rise again (to 220 from 132), but not to a point near its first-year peak. The fifth year would then show a 68-school decline to the 25% level.

A greater share of the numerical total of multi-ethnic Desegregated schools (62%) would be lost over the period, but a goodly portion (45%) of the bi-ethnic total would also disappear from this column. Among bi-ethnic institutions, the principal departures would be Hispanic-White schools (dropping from 69-28) and Black-White schools (falling from 24 to four). Black-Hispanic schools, on the other hand, would lose only four of their number and would constitute 58% of all bi-ethnic Desegregated schools in 1984-85. Thus, although the percentage of all LAUSD schools in the "Desegregated" category at the end of the period under the multi-ethnic definition is projected to be about the same as that achieved through other desegregation prototypes, the change in the definition of "Desegregated" would produce a completely different racial/ethnic configuration of schools and pupils.

The immediate effect of moving to a multi-ethnic Plan, as compared to actual conditions in 1979-80, could only be projected if the 1979-80 situation were analyzed according to the definition of desegregation specified above. Such an analysis was not part of the task assigned in this simulation series.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by the Plan involve substantial pupil flight. The total 1984-85 student body is projected to be 509,000 pupils, of whom 116,000 (or 23%) would be Black, 281,000 (or 55%) would be Hispanic, 46,000 (or 9%) would be Other Minorities, and 67,000 (or 13%) would be White. The total pupil population represents a loss of 87,000 (or 15%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 44% drop below the demographic projection.

Chart 92 depicts the numbers of pupils attending Segregated and Desegregated schools during the projection period. Chart 93 shows the breakdown of pupils who would attend Desegregated schools, by racial/ethnic regime of the school. In brief:

- Under the leeway rule of ten, in 1980-81 the Plan would result in 209,000 (or 44% of all) pupils attending Desegregated schools. (If the leeway rule were two, this total would be 124,000 (or 26%); if the rule were 20, the total would be 280,000 (or 59%.)
- Within those Desegregated schools in 1980-81, 120,000 (or 57%) pupils would be attending bi-ethnic institutions and 88,000 (or 43%) would be in multi-ethnic ones. Of all pupils in bi-ethnic schools, 56,000 (or 46%) would be in Black-Hispanic schools, 10,000 (or 8%) would be in Black-White ones, 34,000 (or 29%) in Hispanic-White, 4,000 (or 3%) in

Black-Other Minorities, 16,000 (or 13%) in Hispanic-Other Minorities, and 824 (or 1%) in White-Other Minorities.

- Under the leeway full of ten, the Plan would result in 264,000 (or 56% of all) pupils in Segregated schools in 1980-81.
- In 1984-85, under the leeway rule of ten, the Plan would produce 115,000 (or 23% of all) pupils in Desegregated schools. (If the leeway rule were reduced to two, this total would be 82,000 (or 16%); if it were increased to 20, the total would be 153,000 (or 30%.)
- Within the Desegregated schools in 1984-85, 62,000 (or 54% of the pupils would be placed in bi-ethnic ones, and 53,000 (or 46%) in multi- ethnic institutions. Of all pupils in bi-ethnic schools, 42,000 (or 68%) would be in Black-Hispanic ones, 2,000 (or 3%) in Black- White, 13,000 (or 21%) in Hispanic-White, 3,000 (or 3%) in Black-Other Minorities, and none in White-Other Minorities.
- The Plan would result in 394,000 (or 77% of all) pupils in Segregated schools in 1984-85.

Overall, the simulation suggests that the share of pupils desegregated by the Plan would always lag a bit behind the share of schools. Thus, the pupils in that category would constitute 44% of all pupils in 1980-81 and 23% in 1984-85. The pupil figure shows the same falling-then-rising-then-falling-again pattern that is described by the number of Desegregated schools over the projection period. That is, it falls during the second and third years, recovers somewhat after the new assignments in 1983, and then falls again, but more sharply.

Among pupils attending Desegregated schools, the fall in the share enrolled in bi-ethnic institutions (48% over the period) would be slightly larger than the loss in multi-ethnic ones (40%). Again, the most dramatic decreases would be in pupils attending Black-White schools (who would drop by 80%) and those enrolled in Hispanic-White ones (a 68% drop). Pupils in Black-Hispanic schools, on the other hand, would decrease by only 25%, and would represent 68% of all pupils in bi-ethnic Desegregated schools in 1984-85. This again highlights the different effects produced by this definition of "Desegregated" as against the conventional one used in other simulations.

Differential Effects on Grade Levels

Charts 94, 94A, 95 and 96 present the elementary, junior high school, and high school effects of the Plan by racial/ethnic groups. In brief, they show that:

- Among elementary school pupils, sixth graders would make up the highest proportion in Desegregated schools in all years, while first graders would comprise the least.
- Among junior high school pupils, 33-34% would be in Desegregated schools in all years.
- Among senior high school pupils, tenth graders would be the largest group (38-39%), while twelfth graders would be the smallest.
- Between 59% and 81% of all elementary school pupils would be in Segregated schools throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 64% to 87%, and for senior high school enrollees 38% to 73%.

Overall, this pattern of grade distribution of Desegregated pupils is much the same as in other variations. The share of participation climbs as one progresses thought the grades, peaks at tenth grade, and falls off in eleventh and twelfth, as dropout rates reinforce demography and flight. However, the change in the share in Segregated schools is greater in the case of this plan, particularly in the senior high schools, where the swing is 35% over the period. Interestingly, the junior high school and high school shares would not peak in the first year, but in the second -- and then decline sharply.

Pupils Transported

Chart 97 shows the total number of children who would be transported under the Plan, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

- Under any leeway rule, in 1980-81 about 139,000 (or 30% of all pupils) would be transported in 1980-81. The corresponding figures for 1984-85 would be 123,000 (or 24%).
- About half of the pupils transported in all years would be elementary school pupils. They would be 53% of those transported in 1980-81. In 1984-85, this figure would increase to 55%.
- The burden of transportation to non-neighborhood schools would fall predominantly upon Minority pupils in all years. In 1980-81, 88% of all pupils transported would be Minority, with Blacks making up 32%, Hispanics 41%, and Other Minorities 15%. In 1984-85 the travel share of Minorities would rise to 91%, and the individual share of Blacks would be 29%, of Hispanics

44%, and of Other Minorities 17%.

- Of all Minority pupils in the system, 32% would be transported in 1980-81, falling to 25% in 1984-85. Blacks would move from 36% in 1980-81 to 31% in 1984-85. The corresponding numbers for Hispanics would be 26% and 19%, and for Other Minorities 53% to 46%. The share of White pupils transported would start the period at 18%, and fall to 17% by 1984-85.

Overall, the simulation indicates that the number of pupils transported under this Plan would be high by current standards, and by 1984-85 would approximately equal the number of pupils in Desegregated schools. About nine of ten of those transported in all years would be Minority pupils, with Other Minorities by far the most traveled of the racial/ethnic groups. The chances that a number of an Other Minority group would be transported would be about one in two throughout the period, while it would be one in 3-4 for Blacks, one in 4-5 for Hispanics, and one in six for Whites. As will be discussed below, however, this Plan would result in all transported pupils travelling for substantially shorter average times than would occur under other variations.

Average One-Way Travel Times

Chart 98 presents the average one-way travel times experienced by all pupils transported under the multi-ethnic Plan. In brief, it shows that:

- Under a leeway rule of ten, the Plan would result in 1980-81 in average travel times of 30 minutes for elementary school pupils, 32 minutes for junior high pupils, and 36 minutes for high school pupils.

-- The 1980-81 Plan figures would break down to an average of 31 minutes for all Black pupils, 30 minutes for all Hispanics, 30 minutes for Other Minorities, and 43 minutes for Whites.

-- In 1984-85, the Plan would generate average travel times of 32 minutes for elementary schools, 31 minutes for junior high pupils, and 35 minutes for senior high pupils.

-- The 1984-85 figures would break down to an average of 32 minutes for all Black pupils, 30 minutes for all Hispanics, 32 minutes for Other Minorities, and 45 minutes for Whites.

Overall, the Plan would yield stable average travel times over the period, maintaining an all-transported-pupil average of 32 for the five years. With respect to ethnic groups, Whites would experience by far the highest average times, although as pointed out above, they would make up only 10-12% of pupils transported. High school pupils would travel longest, on average, but only by 3-4 minutes. The averages for all Minority groups would be almost precisely equalized.

Summary of Quantifiable Findings

	Multi-ethnic Plan
Total Enrollment	
1980-81	
Expected	579,000
Flight	-106,000 (or 18%)
Projected total	473,000
1984-85	
Expected	597,000
Flight	- 88,000 (or 15%)
Projected total	509,000

	Multi-ethnic Plan
Desegregated Schools	
1980-81	273 (or 45%)
1984-85	152 (or 25%)
Segregated Schools	
1980-81	328 (or 55%)
1984-85	449 (or 75%)
Desegregated Pupils	
1980-81	209,000 (or 44%)
1984-85	115,000 (or 23%)
Segregated Pupils	
1980-81	264,000 (or 56%)
1984-85	394,000 (or 77%)
Total Pupils Transported	
1980-81	
Voluntary	0 (or 0%)
Mandatory	139,000 (or 100%)
Total	139,000
1984-85	
Voluntary	0 (or 0%)
Mandatory	123,000 (or 100%)
Total	123,000

Average Travel Times

	Multi-ethnic Plan
1980-81	
Overall	32
Black	31
Hispanic	30
Other Minority	30
White	43
1984-85	
Overall	32
Black	32
Hispanic	30
Other Minority	32
White	45

CHARTS FOR PART VI

CHART 90

MULTI-ETHNIC PLAN
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

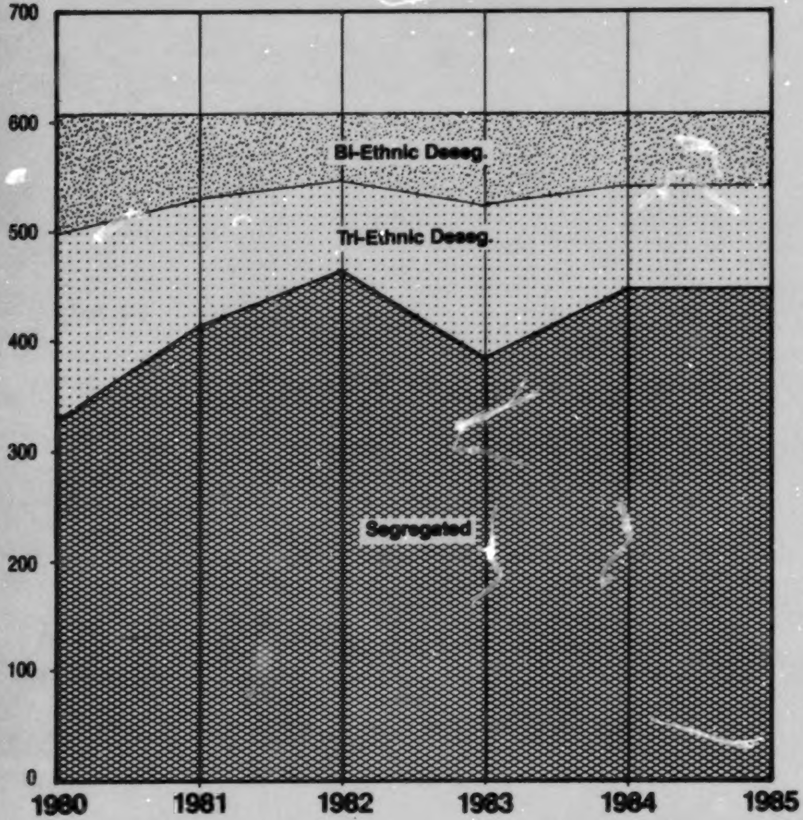


CHART 91

MULTI-ETHNIC PLAN

PROJECTED RACIAL/ETHNIC REGIMES OF DESEGREGATED SCHOOLS, 1980-1985

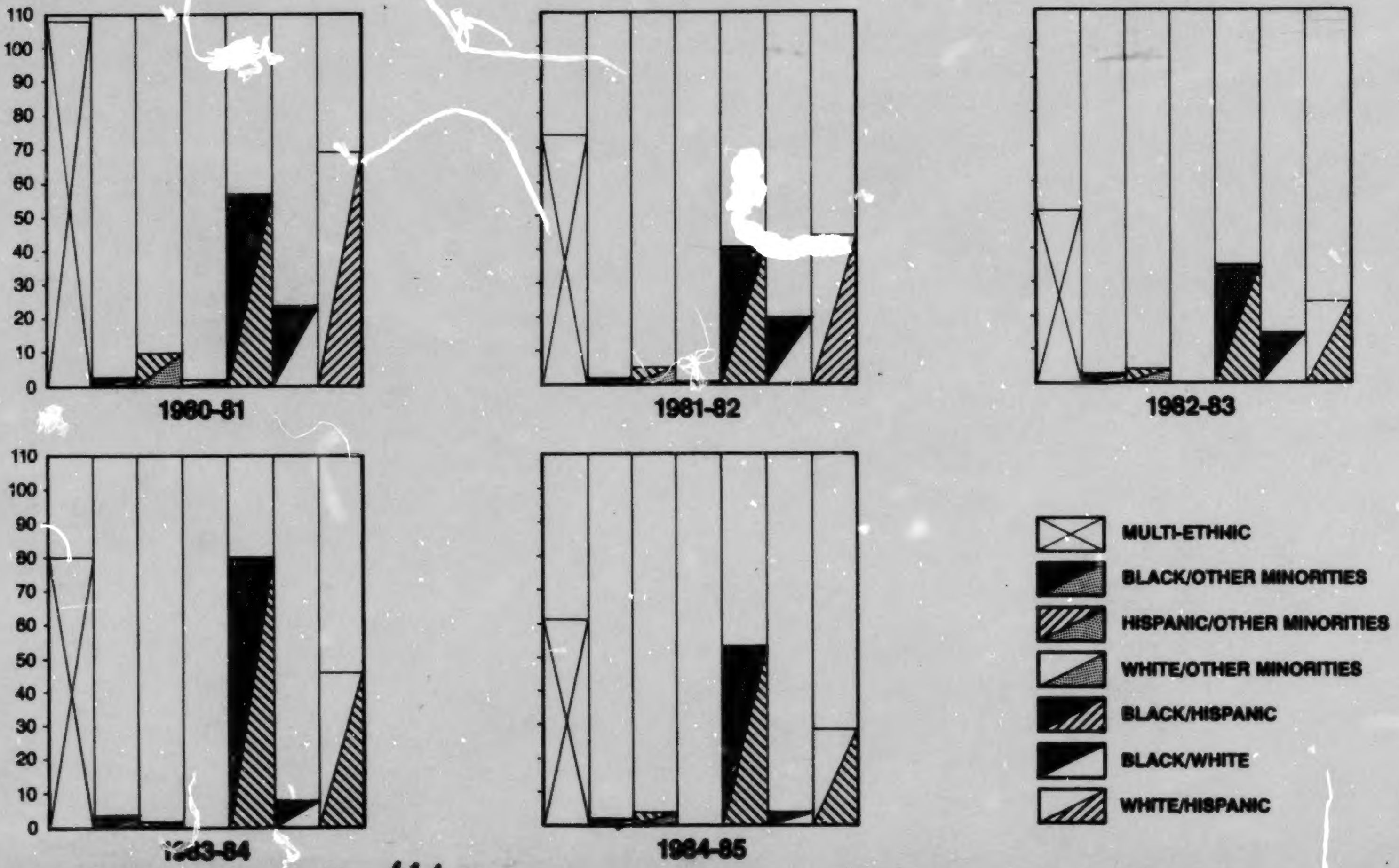


CHART 92

MULTI-ETHNIC PLAN

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

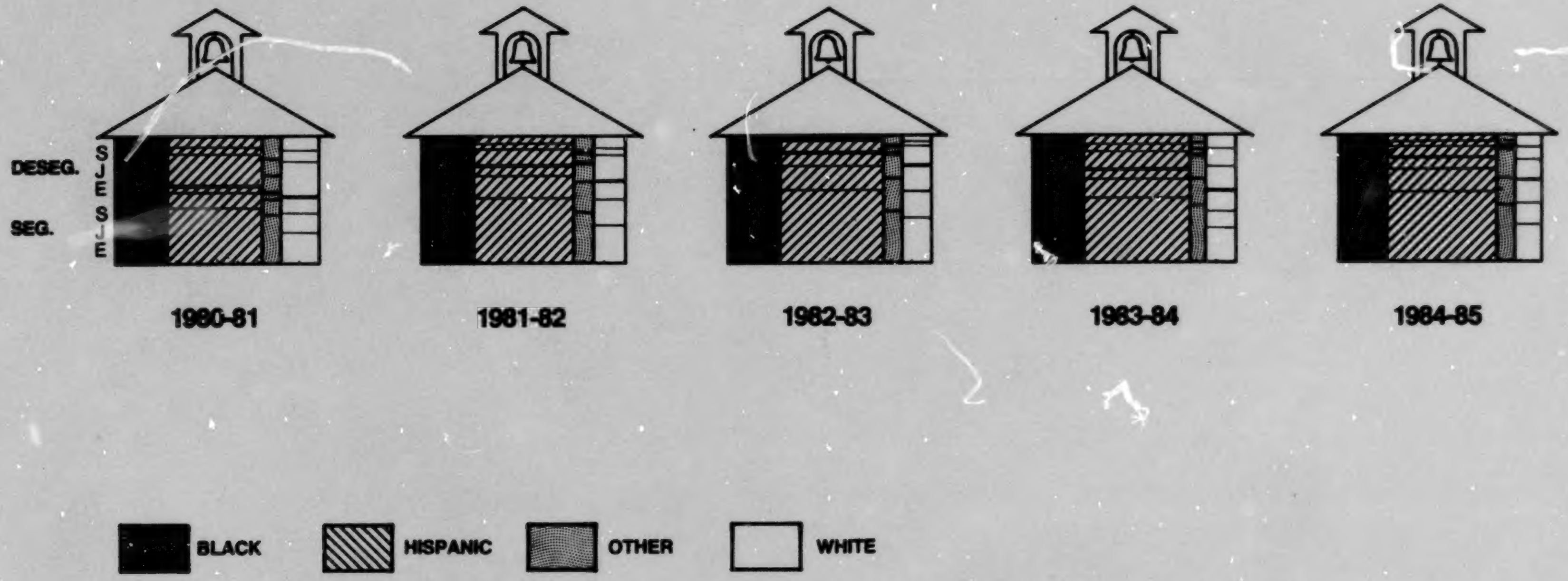


CHART 93

MULTI-ETHNIC PLAN
PROJECTED RACIAL/ETHNIC REGIMES OF PUPILS IN DESEGREGATED SCHOOLS, 1980-1985

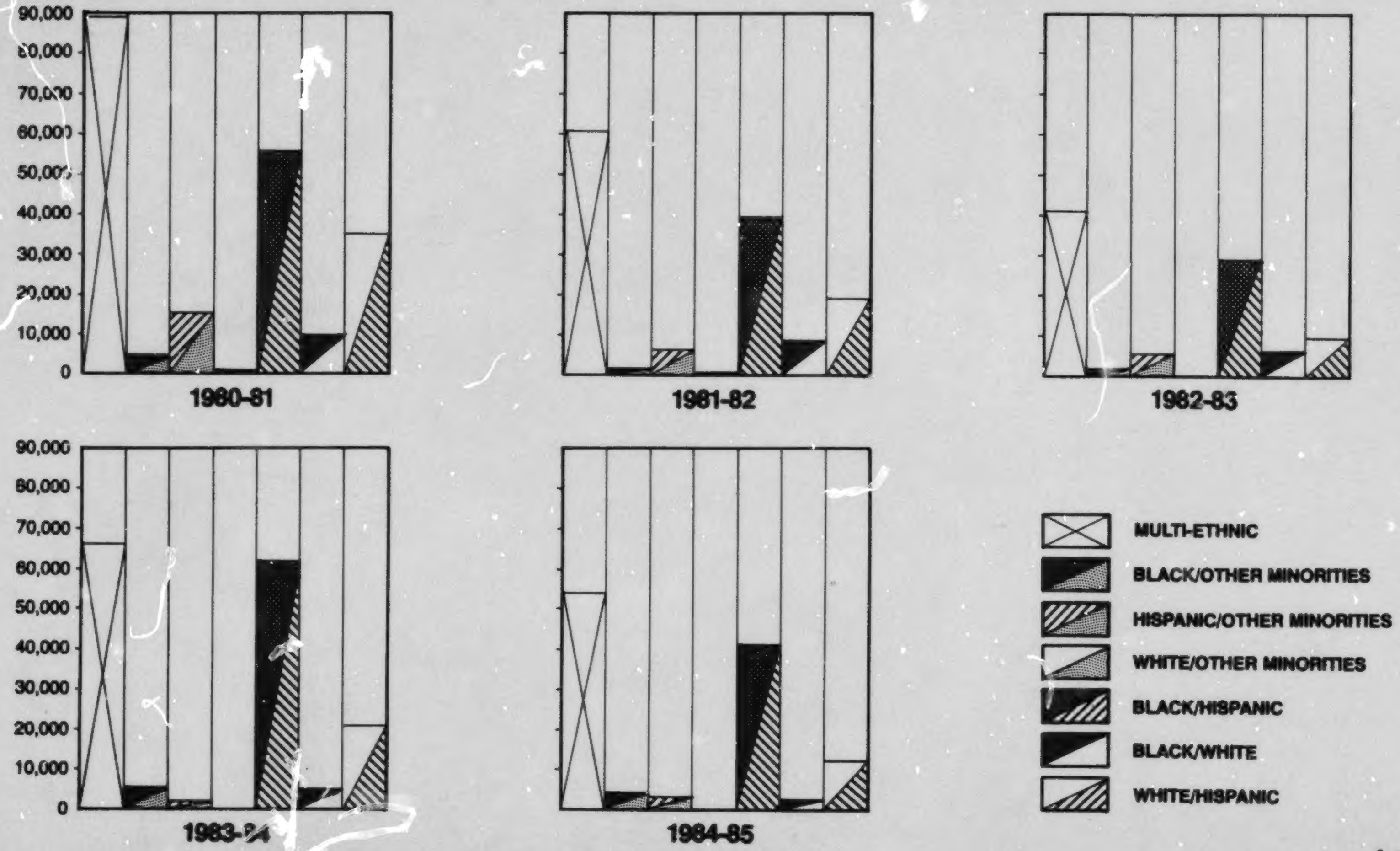


CHART 94

MULTI-ETHNIC PLAN

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

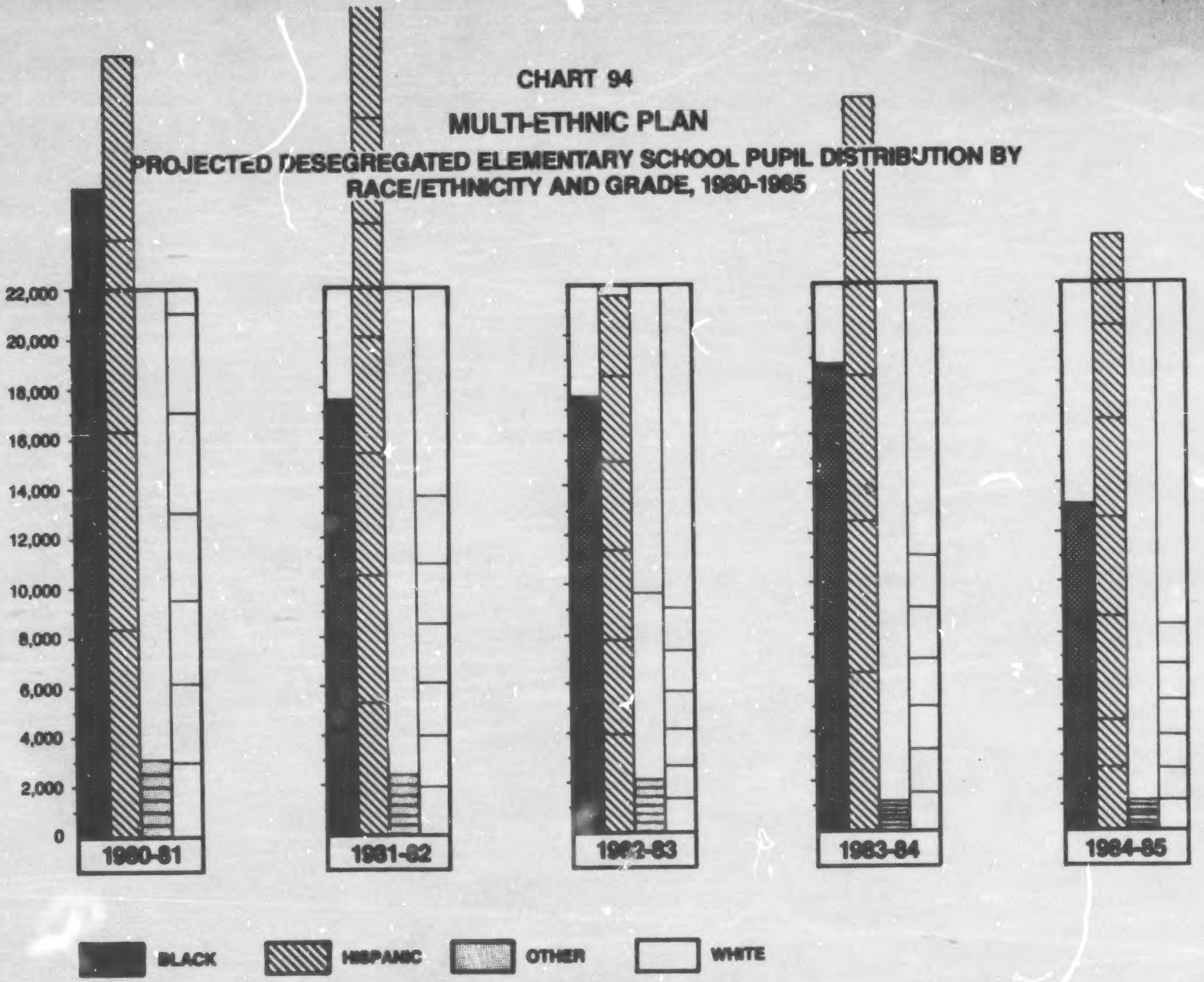


CHART 9 4 A

MULTI-ETHNIC PLAN

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

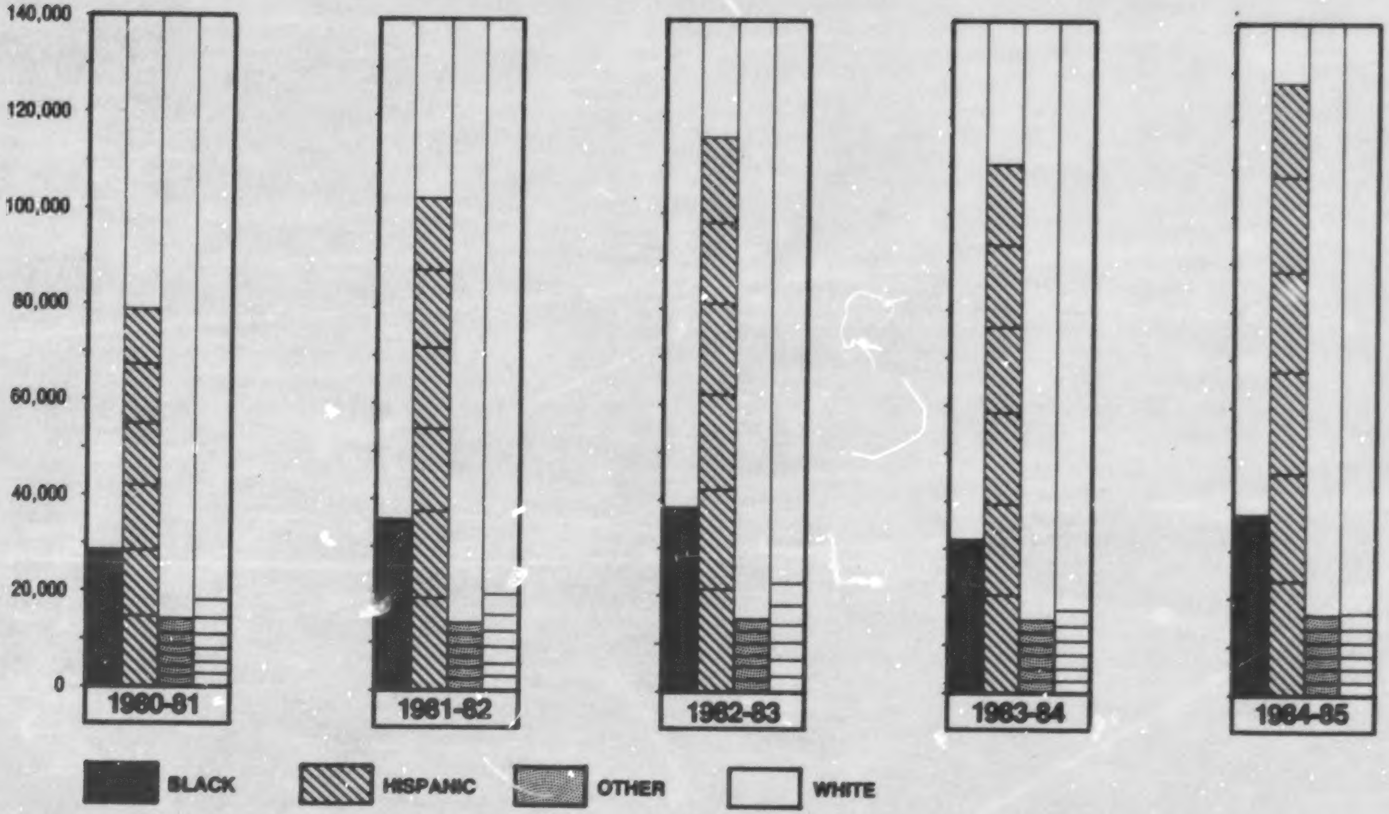


CHART 95

MULTI-ETHNIC PLAN

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

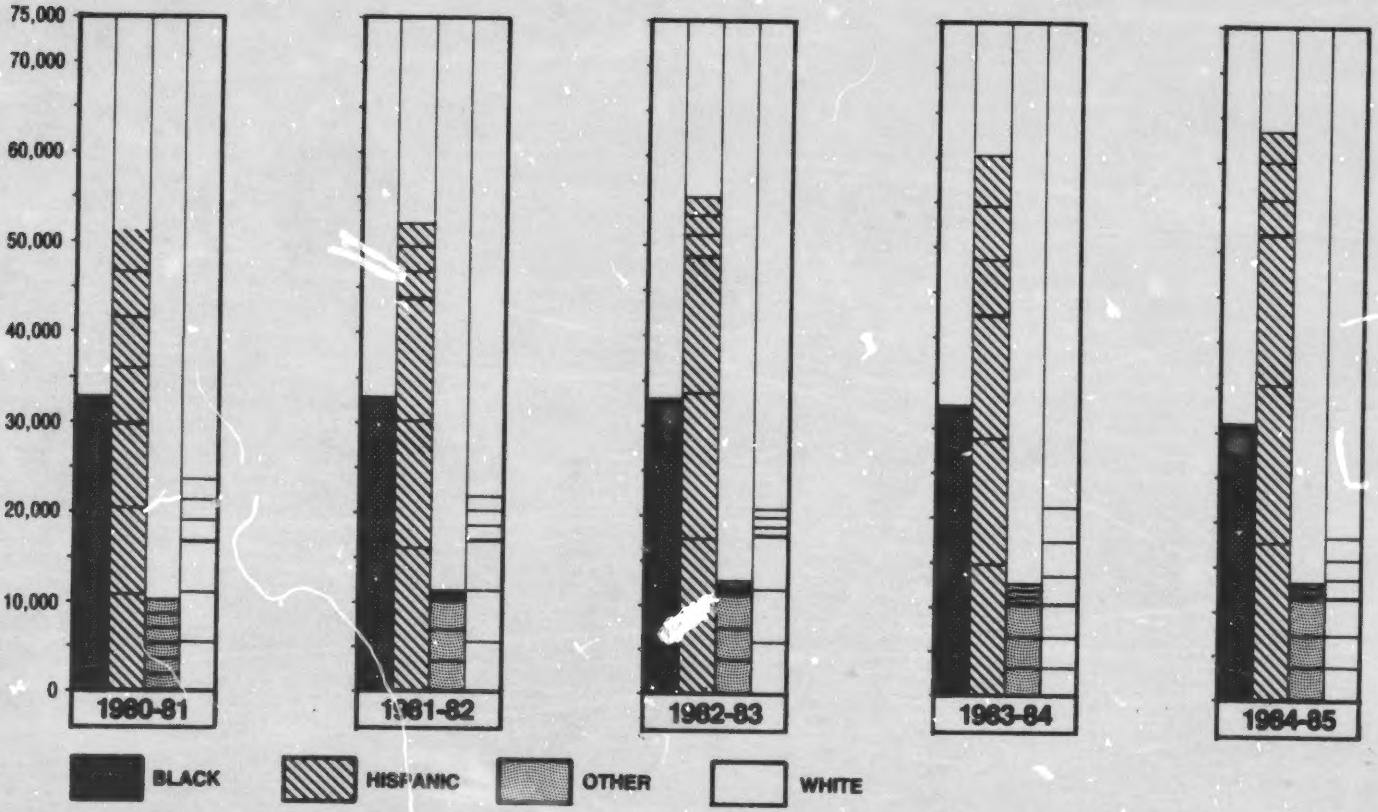


CHART 96

MULTI-ETHNIC PLAN

PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985

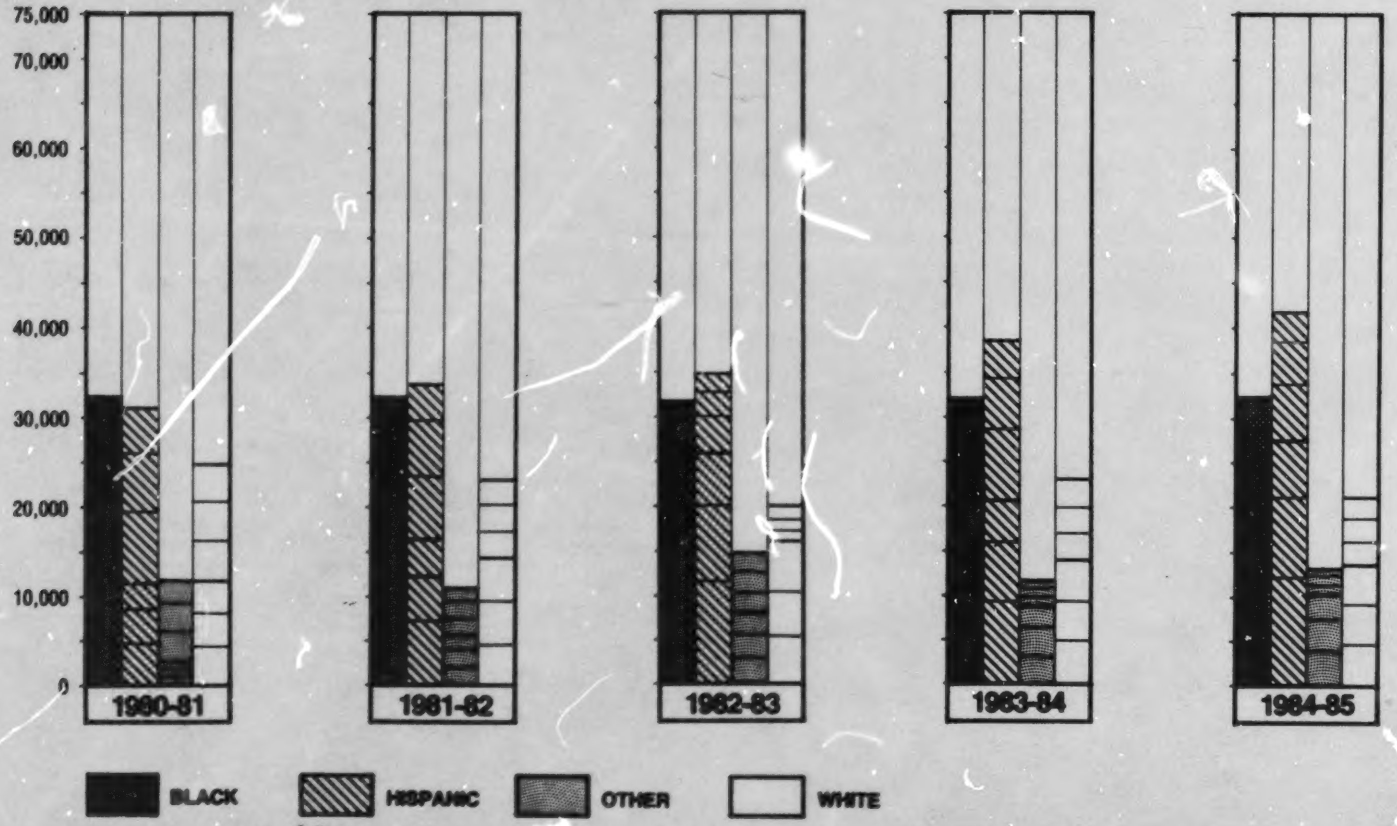


CHART 97

MULTI-ETHNIC PLAN

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

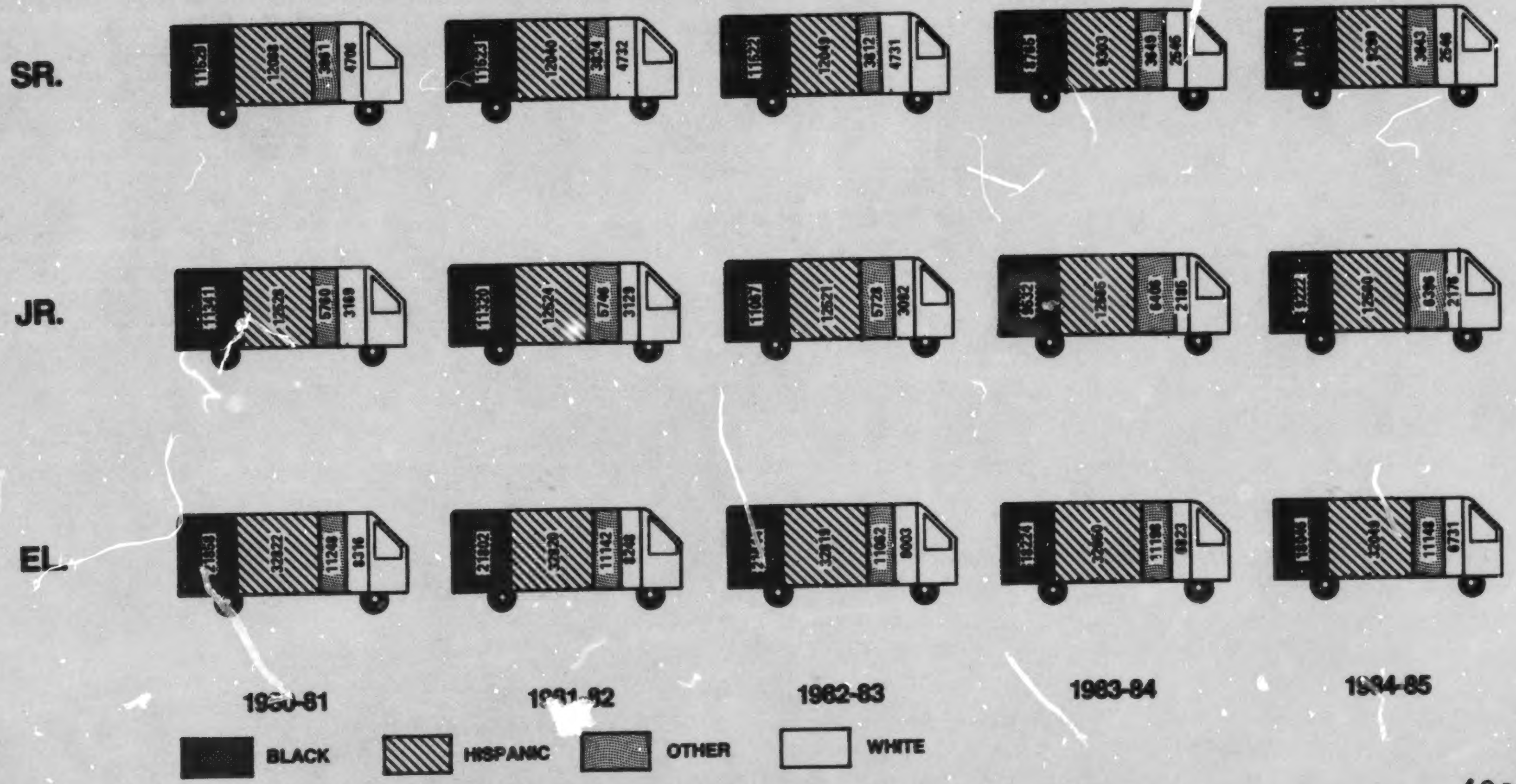
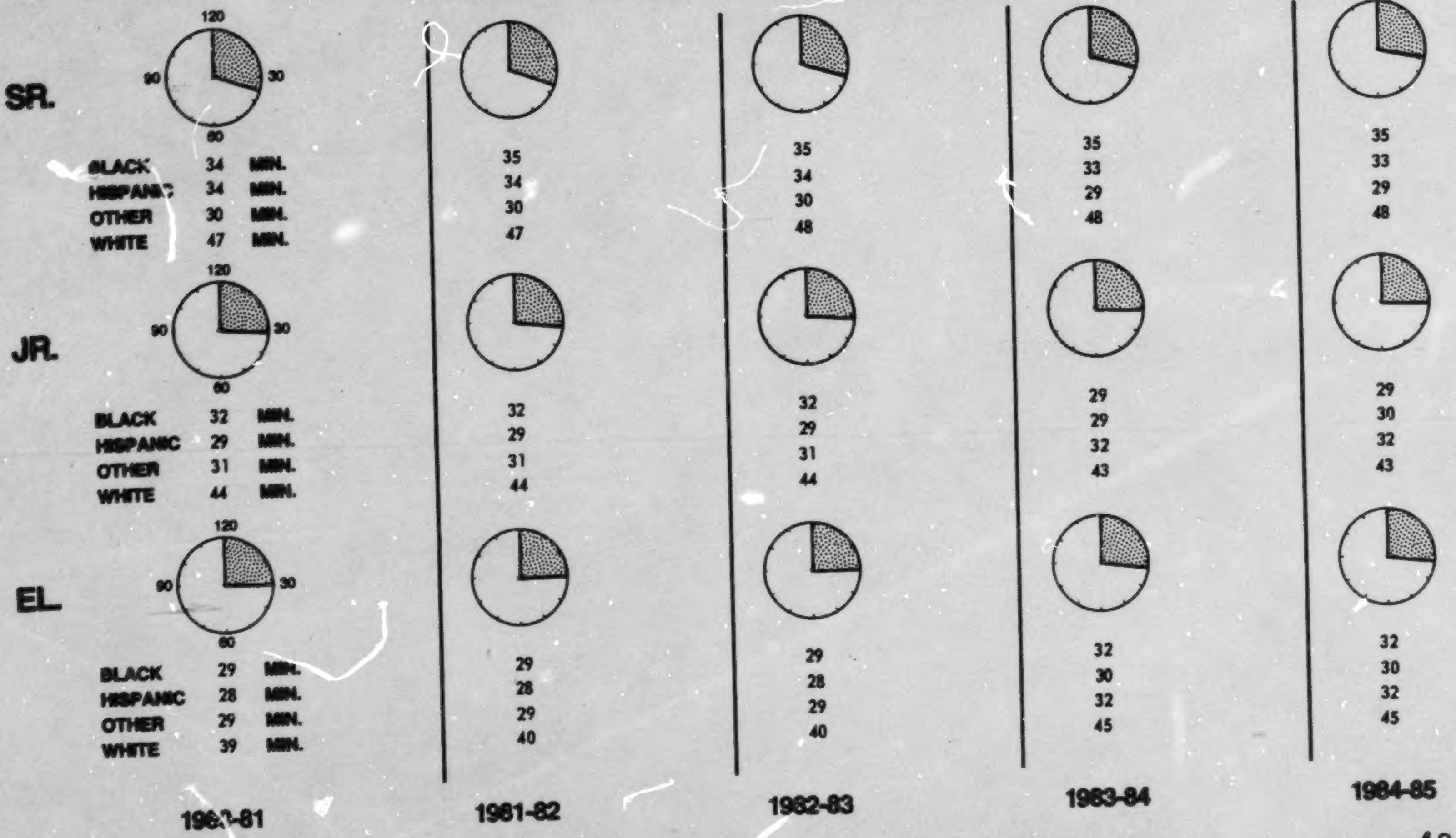


CHART 98

MULTI-ETHNIC PLAN

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



VII. AREA RESOURCE UTILIZATION PROTOTYPE

Definition

The objective of this prototype is desegregation of the maximum number of LAUSD schools possible by adding to any intra-District desegregation plan a broader effort to use educational facilities in surrounding districts that may now be underutilized, wherever this approach would (i) keep the maximum travel time for any LAUSD pupil under 30 minutes, and (ii) not disrupt the racial/ethnic balance of the receiving school.

Programmatic Instruments Employed

The prototype assumes that the extra-LAUSD element of the plan is mandatory, and is grafted on to a voluntary/mandatory desegregation plan operating within the District. The instrument added by the area-wide aspect of this approach would be mandatory assignment of LAUSD pupils to attend schools in surrounding districts to the extent that space and racial/ethnic balance would permit. Such pupils would be transported as at present, but all traffic would be outbound from the LAUSD: no requirement would be levied upon suburban pupils to be transported into LAUSD. Moreover, first priority would be assigned to desegregating schools and pupils within the LAUSD; if a school can be desegregated by intra-District means, it is exempted from consideration for extra-District linkage. Only if a District school cannot be desegregated through whatever intra-District desegregation plan is in use would that District school become eligible for assignment as a sender of pupils to a neighboring district.

Constraints and Specific Decision Rules

The general decision rules built into the sub-models for projecting the elements of this type of plan are described in Part II. Since this prototype builds on intra-District application of the voluntary/mandatory prototype, all of the rules used there are implicit in these projections as well. The following additional rules are peculiar to this prototype:

- No school in a neighboring district is permitted to have more than 50% White or Combined Minority pupils through mandatory transportation of LAUSD pupils.
- No LAUSD school is permitted to be moved out of the "Desegregated" category through such transfers.
- No LAUSD pupil is permitted to travel to an out-of-District school for more than 30 minutes each way.
- No school in a neighboring district is permitted to exceed its physical capacity because of an inflow of LAUSD pupils.
- Because no transportation originates in neighboring districts, no pupil flight is assumed to occur in them as a result of introduction of an area-wide program for the LAUSD.

Special Note on Area-wide Data Base

No area-wide bank of data on school information has ever been compiled in the Los Angeles region which can be simply or perfectly adapted to this analysis. This is particularly true of information on the physical capacity of schools, which, as has already been pointed out, is a slippery enough topic within the LAUSD. A special survey would be required in order to ascertain with reasonable confidence precisely how much unused physical capacity exists in surrounding school districts. This study was requested within a time frame that would not permit such a survey. In light of the fact that enrollments are dropping in most districts and have been for several years, it is not unreasonable to assume that considerable capacity is in existence. But there is no current systematic examination of these facilities now available that could establish exactly how much.

As a surrogate for these absent data, this study uses a simple process to predict underutilized capacity. A base year is chosen -- in this case, 1973 -- that is far enough behind the present to avoid recent distortions, but not so far as to suggest that physical facilities may have aged to the point of uselessness since that year. Actual attendance in each neighboring district school for that year is then compared to attendance for the most recent year available. The number of pupils, if any, by which the base year number exceeds the most recent year's number is regarded as unutilized capacity. However, transportation of LAUSD pupils into such a school is not permitted unless this "excess capacity" figure exceeds 50 pupils.

In principle this procedure should yield a reasonable measure of extra capacity. In practice, however, there are doubtless cases in which it misleads. But, once again, the numbers of pupils and schools involved in this study are so large that the anomalies born of this measuring process would need to be very large indeed in order to throw off the direction of the conclusions that emerge from the projections.

Variations G1 and G2

Basic Ground Rules

Variations G1 and G2 assume that the LAUSD will have embarked upon the voluntary/mandatory desegregation Plan projected under the labels D1 and D2 in Part V. That is, a Plan that spreads the mandatory elements of the desegregation program gradually through the grades, adding two grades per year, so that all of them are incorporated by the fourth year of the projection period. This Plan also permits application for and assignment to the voluntary aspects of the program before the racial/ethnic balance of each school is assessed and its eligibility for mandatory linkage is determined. Finally, it exempts schools from mandatory linkage only when, including the effects of voluntary transfers, the school meets the basic "Desegregated" standard (at least 40% each of Whites and Combined Minorities).

Difference Between the Variations

Plans G1 and G2 differ from each other in only one respect:

- -- Plan G1 is built upon voluntary/mandatory variation D1, which imposes a 30-minute limitation on the travel time of any mandatorily-assigned pupil who is transported to another LAUSD school.
- -- Plan G2 is built upon voluntary/mandatory variation D2, which imposes a 45-minute limitation on the travel time of any mandatorily-assigned pupil who is transported to another LAUSD school.

It will be recalled that in both cases there is a 30-minute limit on the travel time of any pupil who is mandatorily assigned to a school outside the LAUSD.

Number of Segregated and Desegregated Schools

Chart 99 shows the number of District schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. The characteristics of the model do not permit projection of the number of neighboring district schools that would also be Desegregated by this Plan. (However, the model does control to be certain that no extra-District school is made Segregated by an inflow of LAUSD pupils.)

In brief, as the Chart shows:

- -- In Plan G1 the number of Desegregated LAUSD schools starts at 186 (or 28%) in 1980-81 and falls to 158 (or 24%) by 1984-85. The corresponding numbers for Plan G2 are 224 (or 33%) and 158 (or 24%).
- -- In Plan G1 the number of Segregated schools starts at 475 (or 71%) in 1980-81 and rises slightly to 499

(or 75%) by 1984-85. The corresponding numbers for Plan G2 are 438 (or 66%) and 499 (or 75%).

-- In Plan G1, within the "Segregated" catogory, the number of RIWS declines from 76 to 27 by 1985, while RIMS increase from 399 to 472. The corresponding figures for Plan G2 are 40 to 24 in the case of RIWS and 398 to 475 in the case of RIWS.

Overall, the simulation indicates that the additive area-wide element in the two Plans would not result in any noticeable increase in the aggregate number of Desegregated LAUSD schools that would have resulted from the operation of the intra-District element alone. Indeed, in most years of the projection period, the area-wide Plan actually desegregates fewer total schools. This is not the case with the number of pupils afforded a Desegregated educational experience outside the District, as will be noted, and it is also true that the bulk of these additional pupils would come from RIMS, which are not reached in any substantial numbers by any intra-District voluntary/mandatory plan. Nevertheless, because these area-wide Plans do not bring any Whites into the RIMS, those schools do not become Desegregated by the loss of a number of Minority pupils. In most cases, they simply become smaller in total enrollment.

Thus, neither Plan will desegregate more than 28% of LAUSD schools in 1980-81, nor retain more than 24% of them in that category in 1984-65. Under Plan G1 the prospect is for decline from the first-year peak for the next two years, followed by a mild upsurge in the fourth, and a sharp drop in the fifth. Plan G2 would yield a higher first-year number of Desegregated schools, but the number would decline steadily as the period proceeds.

The model emerges in some years with a lower projected total of Desegregated schools for the area-wide Plans than for the intra-District Plans to which they are added because of the phenomenon of flight. These simulations assume that announcements of mandatory pupil assignments are made in the spring preceding the start of the school year when they are to take effect. Pupils (or their parents) then make their decisions with respect to the following fall. The flight sub-model forecasts how many of them will decide to leave the LAUSD. Since the sub-model is informed by the 1978-80 experience, during which pupils could choose to apply for Magnet or PWT participation and, if accepted, be exempt from mandatory assignments, the existence of this option is already implicit in the flight forecasting factors. When the flight sub-model is applied to the larger number of schools that would be involved in an area-wide Plan (as compared with its intra-District component alone), more pupils are predicted to depart. (It should be remembered that 1978-80 flight is not an exclusively White phenomenon; Minority pupils have demonstrated flight rates that are substantially lower, but still significant.) These departures affect the number of applicants for Magnets and PWT. The result in some years is failure to form or to establish racial/ethnic balance in a few of the schools that would have become Desegregated under the intra-District element of the Plan operating alone. This loss of schools may be seen as the tradeoff required for the increment of pupils sent to Desegregated suburban schools that the area-wide Plans result in.

Still, the simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be an increase, ranging from modest to substantial, in the number of Desegregated LAUSD schools. Plan G1 would raise the current number by 12, a growth of 7%. Plan G2, on the other hand, would increase the current actual number by 51, a 29% enlargement. All of this increase, as noted above, would result from the intra-District element of the Plan. However, both Plans would accomplish substantial additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan G1 would desegregate 115 more schools in 1980-81 and 95 more in 1984-85 than would be expected in the absence of a plan. Plan G2 would desegregate 174 more schools in 1980-81 and 95 more in 1984-85 than would demographic forces operating without intervention by a plan.

The difference between the two Plans -- the lower intra-District travel time ceiling in Plan G1 -- has important effects. Convergence between the results of the two occurs rapidly, as in the D1-D2 configurations, so that they are only two schools apart in the fourth year (1983-84), and are identical in their numerical Desegregation effects in the fifth year of the projection period. In a context in which pupils who cannot be desegregated through intra-District means may be sent outside the District, the "advantage" provided by the higher intra-District travel time limit in Plan G1 loses its ability to make a difference in the aggregate effect as the same time as it would if the extra-District option were not available. The convergence is even more pronounced with respect to the evolution of RIWS and RIMS. The projected RIWS totals for the two Plans are only three schools apart in 1984-85, although they start the period 36 schools apart. The RIMS projections are never more than three schools apart in any year of the projection period. Put another way, the addition of an area-wide element to the D1-D2 intra-District effects within the "Segregated" category of schools yields virtually identical results for RIMS, and rapidly convergent ones for RIWS. However, as already noted, many RIMS would be smaller in enrollment than would be the case if the area-wide aspect were not contained in the Plan.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by these two variations involve substantial pupil flight. And, since more schools are involved in mandatory transportation in one Plan than in the other, the flight estimates for the two differ. For Plan G1 the total 1984-85 student body is projected to be 546,000 pupils, of whom 117,000 (or 21%) would be Black, 289,000 (or 53%) would be Hispanic, 48,000 (or 9%) would be Other Minorities, and 92,000 (or

17%) would be White. The total pupil population represents a loss of 51,000 (or 9%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 23% drop below the demographic projection.

Plan G2 is projected to produce a total pupil population of 543,000 in 1984-85, of whom 117,000 (or 22%) would be Black, 289,000 (or 53%) Hispanic, 48,000 (or 9%) Other Minorities, and 90,000 (or 16%) White. The loss from demographic expectations would be 53,000 pupils (or 9%) below demographic projections. As is clear from these numbers, Plan G2 would involve the flight of about 2,000 pupils, or an increment of 4%, beyond what is forecasted to result from Plan G2.

Chart 100 depicts the numbers of LAUSD pupils attending schools, both inside and outside the LAUSD, in each category under each Plan during the projection period. In brief, it shows that:

-- Under Plan G1 in 1980-81, 147,000 LAUSD pupils (or 28%) would be enrolled in Desegregated schools both inside and outside the District. Of these, 3,800 (or 1%) would be attending schools in neighboring districts. The corresponding figures for Plan G2 are 172,000 (or 33%) and 3,700 (or 1%).

-- Under Plan G1 in 1980-81, 382,000 LAUSD pupils (or 72%) would be enrolled in Segregated schools both inside and outside the District. Of these 8,000 (or 2%) would attend schools in neighboring district. The corresponding figures for Plan G2 are 341,000 (or 67%) and 7,700 (or 2%).

-- In 1984-85, Plan G1 would result in 123,000 (or 23%) LAUSD pupils enrolled in Desegregated schools inside and outside of the District. Of these 4,900 (or 1%) would attend schools in neighboring district. The corresponding figures for Plan G2 are 127,000 (or 23%) and 4,900 (or 1%).

-- In 1984-85, Plan G1 would result in 422,000 (or 77%) of LAUSD pupils enrolled in Segregated schools inside and outside of the District. Of these, 11,000 (or 2%) would attend schools in neighboring districts. The corresponding figures for Plan G2 are 416,000 (or 77%) and 11,000 (or 2%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 172,000 (or 33%), which would be accomplished by Plan G2 in the first year of the projection. Of these, 3,700 (or 1%) would be enrolled outside the District. An additional 7,700 (or 2%) of LAUSD pupils would be transported outside the district to schools which, although Segregated, would be segregated in the opposite direction from their home schools (i.e., the predominant racial/ethnic group -- which would be White in all cases -- would not be the one to which they belonged). Both the total number of pupils sent out of the District and the total sent out to Desegregated schools are projected to grow steadily over the period, so that the highest is reached in the last year projected. Yet, neither Plan, even incorporating the pupils in Desegregated schools outside the District, would yield more than 127,000 desegregated LAUSD pupils in 1984-85 (or 23% of all District pupils). Thus, the pattern of pupil desegregation would be the same as the pattern effected in the desegregation of LAUSD schools.

The model suggests that the immediate effect of introduction of either Plan, as compared to actual conditions in 1979-80, would generate a substantial increase in the aggregate number of pupils in Desegregated schools, both inside and outside the District. Plan G1 would result in 29,000 (or 25%) more pupils in such institutions than are currently in them, and Plan G2 would yield 54,000 (or 46%) more than the current level. Both Plans would effectuate much more desegregation of pupils than would have occurred in the absence of any plan. Plan G1 is forecast to put 84,000 more pupils in this situation in 1980-81 and 69,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan G2 are 109,000 in 1980-81 and 73,000 in 1984-85.

Looking across the full projection period, the two Plans again show the converging phenomenon already described with regard to schools, but it is even more evident with respect to pupils. By 1984-85, the difference between the number of pupils in Desegregated schools in one Plan as against the other is only 3,800. Again, the model's suggestion is that 15 minutes' difference in travel ceiling becomes of virtually no significance by the end of the period, though it does matter importantly in the first two years. In 1984-85 the odds that a pupil would attend a Desegregated school would be about one in four, compared to the one in ten that would be predicted on the basis of demographic factors alone. The odds that a White pupil would have this experience would be about one in nine in 1984-85 under either Plan, while the odds for a Minority pupil would be about one in eight.

Differential Effects on Grade Levels

Charts 101, 101A, 102, and 103 present the elementary, junior high school, and high school effects of the two Plans, by racial/ethnic groups, for pupils attending schools within the District only. In brief, they show that:

-- Among elementary school pupils, sixth graders would make up the highest proportion (16%) in Desegregated schools in both Plans in all years, while first graders would comprise the least (13% in Plan G1, and 13-14% in Plan G2).

-- Junior high school pupils would contain 33-35% of the Desegregated enrollees in both Plans in all years.

- Among senior high school pupils, tenth graders would be the largest group (36-39% in both Plans), while twelfth graders would be the smallest (26-29%).
- Between 71% and 81% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 63% to 73%, and for senior high school enrollees 59% to 71%.

Overall, the simulation indicates that the addition of an area-wide feature of the type expressed in these variations would have virtually no effect on the grade distribution of pupils in Desegregated LAUSD schools. The distribution shown above is almost identical to what would result from Plans D1 and D2 alone. This follows from the fact that the effect of the area-wide component turns out always to be transportation of Minority LAUSD pupils, the great bulk of whom would come from RIMS that would not be Desegregated either before or after the transportation of some of their enrollees outside the District. Thus, there is no discernible effect upon the grade structure of desegregation within LAUSD.

Racial/Ethnic Mix of Schools

Charts 104, 105, and 106 present the racial/ethnic mix of respectively, elementary, junior high, and senior high schools in the LAUSD under the two Plans. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier. In brief, these Charts indicate that:

- The number of LAUSD elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two Plans in 1980-81 ranges from 66 (or 14% of all elementary schools) to 63 (or 13%). By 1984-85, this range closes to 8%.

-- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 80-100% Combined Minority) created by these Plans in 1980-81 ranges from 239 (or 51% of all elementary schools) to 266 (or 57%). By 1984-85, this range changes to 67-68%.

-- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 13 (or 14% of all junior high schools) to 18 (or 19%). By 1984-85, this range changes to 9-11%.

-- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 49 (or 52% of all junior high schools) to 51 (or 54%). By 1984-85, this range changes to 66-68%.

-- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 16 (16% of all high schools) to 18 (or 18%). By 1984-85, this range changes to 16-17%.

-- The number of senior high schools in the bands closes to "Segregated" in 1980-81 ranges from 56 (or 57% of all senior high schools) to 58 (or 59%). By 1984-85, this range closes to 62%.

Overall, the area-wide element in these two Plans produces a few minor perturbations in the racial/ethnic school pattern that would be established by the intra-District element, but the differences are much less evident than the similarities. The net effect is to make slight (2-4%) increases in the percentages of Segregated elementary and junior high school totals reflects the effects of flight upon possible candidates for voluntary programs that would just manage to move a few more schools out of that category if the additional flight generated by the area-wide element were not introduced into the equation.

Pairs/Clusters/Midsites

The complexities inherent in projecting the interplay of pupil flight and the announcement and partial activation of Pairs/Clusters/Midsites are discussed in the corresponding analysis of variations C1 and C2 (page 113). It is assumed here that the reader has read that discussion and, therefore, understands the terms used in this Section.

Charts 107 and 108 list the originally announced Pairs/Clusters/Midsites formed by the model under the restrictions of Plans G1 and G2, distinguishes those that are in fact activated, and separates them by how long each set lasts in the face of demographic pressures. (It will be recalled that matchings are made twice in the course of the five year period, once before the 1980-81 school year and again before the 1983-84 year, and that all Clusters contain three schools.) In brief, the Charts show that:

-- Plan G1 would result in an announced total of 36 Pairs, five Clusters, and 11 Midsites (of which 18 Pairs, four Clusters, and eight Midsites would be activated) in 1980-81, changing to 38 announced Pairs, no Clusters, and five Midsites (of which 23 Pairs and four Midsites would be activated) by 1984-85.

-- Under Plan G1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 36 Pairs, five Clusters, and 11 Midsites would be announced in 1980, of which none would last through 1985.

Thirty-eight Pairs, no new Clusters, and six new Midsites would be announced in 1983.

- Plan G2 would result in an announced total of 78 Pairs, three Clusters, and 10 Midsites (of which 47 Pairs, three Clusters, and nine Midsites would be activated) in 1980-81, changing to 43 announced Pairs, no Clusters, and no Midsites (of which 29 Pairs would be activated) by 1984-85.
- Under Plan G2, no current Pairs, Clusters, or Midsites would endure in future years. All 78 Pairs, three Clusters, and 10 Midsites would be announced in 1980, of which only one Pair would last through 1985. Forty-two new Pairs, no Clusters, and no Midsites would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by either Plan. Of the new matches made in 1980, none would emerge from the 1983 reassignment under Plan G1, and only one Pair would survive under Plan G2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, very few -- or none -- of the resulting matches are any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of Desegregated schools, nearly every eligible school must be reassigned to a difference grouping. Also, since both Plans desegregate fewer and fewer schools in each year after the second (1981-82), the new matches become less and less efficacious over time.

The addition of the area-wide component in these Plans would make no difference in the school groupings formed in the initial assignment period (1980-83), but substantial differences in the 1983-85 interval. These differences are masked by the aggregate numbers of groupings. Plans D1 and G1 would form the same number of Pairs (38), but 15 that appear in each Plan would not appear in the other. Plan G2 would contain only one more Pair than Plan D2, but 13 of the Plan G2 groups would not appear in D2. The area-wide component does not make large changes in the number of groups, but in the second assignment round it would change a good number of the announced destinations of the pupils to be transported.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) are extremely noticeable in both Plans at several points during the projection period. In Plan G1, it invalidates 22 groupings (or 42% of all groupings) in 1980-83, and 16 (37%) in 1983-85. Under Plan G2, these factors invalidate 32 (or 35% of all) groupings in 1980-83, and 14 (or 33%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan G1 would have 14 groupings (ten Pairs, two Clusters, and two Midsites -- or 47% of the activated groups) partially invalidated in 1980-83, and six (all Pairs -- 21% of all activated groups) in that status during 1983-85.

Both Plans would encounter less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 14-29 (47-49% of all active) groupings created under either Plan would not be transporting pupils in at least one year. In the second interval only six (or 21-22%) of all activated groups in each Plan would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would decline as the number of activated groups declined. Nevertheless, it is clear that the flight/demography combination would be very restrictive of the operation of mandatory linkages under the rules that govern this variation, particularly Plan G1. In the 1980-83 interval, 36 of 52 groupings (69%) announced under this Plan would be fully or partially invalidated by these factors. The invalid share would be lower in 1983-85 (51%), but still more than half.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be, as noted above, a complete change in the groupings of schools that are employed this year. Under Plan G1 there would also be a large decrease in the number of each kind of grouping now in actual use. Under Plan G2 the total number of announced Pairs/Clusters/Midsites in 1980-81 would be nearly double the number actually in effect in 1979-80, but the number activated would be only about the same. The principal perceived difference would probably be the confusion caused by a large number of announced groupings in the spring, which then turned into a much smaller number of activated groupings in the fall.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/ Midsiting of the 15-minute travel time allowance that divides them. The extra time results in nearly twice as many groupings in Plan G2 as in Plan G1. And they are mostly new groupings -- only five of the Pairs announced in 1980 and 11 of the ones announced in 1983 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, the sets of pupils involved in mandatory transport would be largely different, depending on which Plan were chosen.

Magnet Schools

The interplay between demographic forces and Magnet demand creates a different Magnet list in each year for each Plan. Therefore, a simplified chart presentation of Magnet effects is not possible. In summary, the projections show the following:

-- Plan G1 would result in a total of 60 Magnets in 1980-81, of which 17 would be new and 43 would be from the current list. Of the current ones that would be preserved, 43 (or 72% of all Magnets) would be Segregated by the definition used herein. Plan G2 would generate 61 total Magnets in that year, 18 new and 43 old, of which 43 (or 71% of all Magnets) would be Segregated.

-- In 1984-85, Plan G1 would yield a total of 56 Magnets, of which 43 (or 77%) would be Segregated. The corresponding numbers for Plan G2 would be the same.

-- Under Plan G1 43 current Magnets would operate through the entire projection period, while 13 of those first opened in 1980-81 would survive the full five years. Under Plan G2 43 current Magnets would last the full period, and 13 of the 1980-81 crop would also last the full period.

-- The number of pupils attending Magnets in 1980-81 under Plan G1 would be 12,000 (or 2% of all pupils). These pupils would be 25% Black, 46% Hispanic, 8% Other Minorities, and 21% White. Under Plan G2, the total number of pupils would be 13,000 (or 3% of all pupils), and the racial/ethnic breakdown would be 25% Black, 46% Hispanic, 8% Other Minorities, and 21% White.

-- By 1984-85, the number of pupils attending Magnets under Plan G1 would fall to 11,000 (or 2% of all pupils). They would then be 21% Black, 53% Hispanic, 8% Other Minorities and 18% White. Under Plan G2 the total number of pupils in 1984-85 would also be 11,000 (or 2% of all pupils), and the racial/ethnic breakdown would be identical.

Overall, the simulation indicates that the effect of the area-wide component of these Plans would be slightly to increase Magnet enrollment, compared to what Plans D1 and D2 would yield alone. The difference would be one extra Magnet and 500-1,000 pupils at both the beginning and the end of the projection period. But the basic outlines of the Magnet program would be the same -- dominated by the 43 Segregated units carried over from the 1979-80 group, containing a rising share of Hispanic pupils, but never involving more than 20% of the total pupil population.

The immediate effect of the installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of Magnets (from 55 to 60-61), and stability in the number of pupils enrolled in them. But there would be a dramatic change in the racial/ethnic balance of these pupils. Combined Minority participation would rise from 56% of all Magnet attendees in 1979-80 to 79% in 1980-81, while White enrollment dropped correspondingly.

Pupils Transported

Chart 109 shows the total number of pupils who would be transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

-- In 1980-81 Plan G1 would result in transportation of 50,000 (or 9%) of all LAUSD pupils to schools inside and outside of the District. Of these, 12,000 (or 24% of all pupils transported) would be sent to neighboring districts. Thirty-two percent of these outbound pupils would attend Desegregated schools.

-- In 1980-81 Plan G2 would result in transportation of 56,000 (or 11%) of LAUSD pupils to schools inside and outside of the District. Of these, 12,000 (or 21%) would be transported to neighboring districts. Thirty-three percent of these outbound pupils would attend Desegregated schools.

-- By 1984-85, Plan G1 would generate transportation of 51,000 (or 9%) of all LAUSD pupils to schools inside and outside of the District. Of these, 16,000 (or 31%) would be transported to neighboring districts. Thirty-one percent of these outbound pupils would attend Desegregated schools.

-- By 1984-85, Plan G2 would yield transportation to 51,000 (or 9% of all LAUSD pupils to schools inside and outside of the District. Of these, 16,000 (or 31%) would be transported to neighboring districts. Thirty-one percent of these outbound pupils would attend Desegregated schools.

-- The burden of transportation would fall predominantly on Minority pupils under both Plans. In 1980-81, 85-91% of all pupils transported would be Minority, with Blacks making up 36-39%, Hispanics 45-46%, and Other Minorities 5%. In 1984-85, 89-90% of all pupils transported would be Minority, with Blacks comprising 34-35%, Hispanics 49%, and Other Minorities 6%.

-- Of all pupils in the system in 1980-81, 16,000 (or 13% of) Blacks would be transported to LAUSD schools, and 4,000 (or 3%) would be transported to schools in neighboring districts. The corresponding figures for Hispanics are 16,000 (or 7%) and 7,000 (or 3%); for Other Minorities 1,000 (or 1%) and 1,200 (or 1%); and for Whites 5-8,000 (or 4%) and 0 (or 0%).

-- Of all pupils in the system in 1984-85, 13,000 (or 11%) of Blacks would be transported to LAUSD schools, and 5,000 (or 4%) would be transported to schools in neighboring districts. The corresponding figures for Hispanics are 16,000 (or 6%) and 10,000 (or 3%); for Other Minorities 2,000 (or 4%) and 1,000 (or 1%); and for Whites 5,000 (or 5%) and 0 (or 0%).

Overall, the projections show the substantial increase in pupils transported that would be caused by the area-wide element of the Plan. Without this component, Plans D1 and D2 showed a slight to considerable drop in this total. Plans G1 and G2 would both end the period at a level of 51,000 pupils, about 16,000 more than would be transported at that time by D1/D2. This would represent a slight increase over the first year for Plan G1 but a 9% drop from the first-year level for Plan G2. Fundamentally, both Plans would add to the total being transported outside outside the District as the demography and flight forced the deactivation of mandatory groupings and freed up Minority pupils for assignment to surrounding districts. Neither Plan turns out to send any White pupils out of the LAUSD at any time. Thus, this traffic would be entirely composed of Minority pupils traveling to attend Desegregated schools or RIWS. The total number doing so would grow by one-third over the five years, and its racial/ethnic balance would remain reasonably stable, except that Other

Minorities would gradually shift from an extra-District to an intra-District travel emphasis.

The immediate effect of adopting either Plan G1 or Plan G2 in 1980-81, as compared with actual conditions in 1979-80, would be greatly to increase the number of pupils transported and to make equally large changes in their racial/ethnic balance. The number transported would rise from 42,000 (or 8% of all pupils) in 1979-80 to 50-56,000 (or 9-11%) in 1980-81. The number mandatorily transported would show an even larger rise, from 16,000 to 17-23,000 (see Chart 110). The share of Combined Minority pupils would rise from the current 77% to 84-90% of the much larger total. The difference between the Plans in this first year of operation would lie importantly in the number of White pupils that each would transport inside the District, with Plan G2 carrying about 3,000 more.

The two Plans travel opposite paths to their common 1984-85 destination. Plan G2, primarily because of intra-District effects, starts at 50,000 pupils and moves up very gradually. By the end of the period, however, the statistical outlines of the two Plans are virtually identical.

Total pupils voluntarily transported break down into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

-- Plan G1 would result in transportation of 12,000 pupils (or 2$ of all pupils) to Magnets in 1980-81, falling to 11,000 (or 2%) in 1984-85. Under Plan G2 the rounded figures would be the same.

-- Under Plan G1 the 1980-81 total of pupils transported to Magnets would include 3,000 (or 25%) Blacks, 6,000 (or 46%) Hispanics, 1,000 (or 8%) Other Minorities, and 3,000 (or 21%) Whites. Plan G2 would result in 3,000 (or 25%) Black pupils being transported, 6,000 (or 46%) Hispanics, 1,000 (or 8%) Other Minorities, and 3,000 (or 21%) Whites.

Under Plan G1 the 1984-85 total of pupils transported to Magnets would include 2,000 (or 21%) Blacks, 6,000 (or 53%) Hispanics, 1,000 (or 8%) Other Minorities, and 2,000 (or 18%) Whites. Plan G2 would produce the same rounded totals.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would be somewhat lower in 1980-81, as it would be without the area-wide element in these Plans, but the total number of Magnet transportees would be a little higher. The racial/ethnic mix of these pupils would show a modest rise in the Hispanic component, a fall in the Black and White shares, and relative stability for Other Minorities.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a large increase in the number of pupils transported to Magnets, despite the much smaller percentage increase in the number of Magnet enrollees. The current total of pupils transported (7,000) would rise to 12,000. The District has no detailed data on the racial/ethnic characteristics of pupils currently transported to Magnets, so comparisons must refer to Whites and Combined Minorities only. At present the latter constitute 56% of the total; under these Plans that share would rise to 79% (or 10,000 pupils).

The two Plans would be nearly identical in their effects on Magnet transportation in all years of the period.

Below is the PWT forecast for these two Plans The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools on the West Side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites or Other Minorities; thus all pupils projected to be transported in this program are Black or Hispanic.

In brief, the projections show that:

- -- Under Plan G1 the number of PWT pupils in 1980-81 would be 20,000 (or 6% of all Black/Hispanic pupils). The corresponding figures for Plan G2 would round to the same.
- -- Of the Plan G1 total in 1980-81, 12,000 (or 61%) of PWT pupils would be Black, and 8,000 (or 39%) would be Hispanic. The Plan G2 results would be identical after rounding.
- -- In 1984-85 Plan G1 would place 17,000 pupils (or 4% of all Black/Hispanic pupils) in PWT, and Plan G2 would do the same.
- -- Of the Plan G1 total in 1984-85, 10,000 pupils (or 60%) would be Black, and 7,000 (or 40%) would be Hispanic. The corresponding figures for Plan G2 would be the same.

Overall, the number of PWT participants in both Plans is projected to drop by about 15% by 1984-85, producing a percentage drop from 6% of all Black and Hispanic pupils to about 4%. These changes entirely reflect the intra-District element of these Plans; the area-wide aspect would have no discernible effect.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be an increase in the number of pupils transported under this program. The current total is 17,000 (or 5% of all Minority pupils), while both the Plans would produce 20,000 (or 6%).

The two Plans would have almost idential effects on PWT participation in all years projected.

Average One-Way Travel Times

Chart 111 presents the average one-way travel times experienced by all pupils transported under Plans G1 and G2. In brief, it shows that:

-- Plan G1 would result in 1980-81 in average travel times, inside and outside of the District, of 32 minutes for elementary school pupils, 43 minutes for junior high school pupils, and 48 minutes for high school pupils. The average travel time for all pupils sent out of the District would be 26 minutes. The corresponding figures for Plan G2 are 35 minutes, 43 minutes, and 37 minutes, with an average of 26 minutes for pupils sent out of the LAUSD.

-- The 1980-81 Plan G1 figures would break down to an average of 44 minutes for all Black pupils, 33 minutes for all Hispanics, 32 minutes for Other Minorities, and 31 minutes for Whites. For pupils transported outside the District, the average time would be 26 minutes. The Plan G2 figures for the same year would break down to an average of 44 minutes for all Black pupils, 35 minutes for all Hispanics, 35 minutes for Other Minorities, and 37 minutes for Whites. For pupils sent out of the District the average time would be 27 minutes;

-- In 1984-85, Plan G1 would generate average travel times of 34 minutes for elementary schools, 44 minutes for junior high pupils, and 40 minutes for senior high pupils. For all pupils sent out of the District, the average would be 26 minutes. The corresponding figures for Plan G2 are 34 minutes, 43 minutes, and 41 minutes, and an average for those sent outside the District of 26 minutes.

-- The 1984-85 Plan G1 figures would break down to an average of 45 minutes for all Black pupils, 34 minutes for all Hispanics, 30 minutes for Other Minorities, and 30 minutes for Whites. For pupils transported outside the District, the average time would be 26 minutes. The Plan G2 figures for the same year would break down into an average of 44 minutes for all Black pupils, 35 minutes for all Hispanics, 30 minutes for Other Minorities, and 33 minutes for Whites. For pupils transported outside the District, the average time would be 26 minutes.

Overall, the two Plans would both yield stable average travel times over the period, showing an all-transported-pupil average of 37-38 minutes in each year of the period. The average weight of the travel time burden would stay in the upper reaches of the system, with the highest averages in senior high school. The area wide element in these Plans would have a noticeable effect in reducing the average time spent by Minority pupils, particularly Blacks, going to and from school. However, this would not be accomplished by reducing the time spent by pupils en route to and from LAUSD schools; it simply reflects the effect of many more Minority pupils who would not otherwise be traveling taking relatively short trips outside the District.

The most significant fact that emerges from comparison of the two Plans is that the travel time ceiling in the area-wide element would exert substantially more downward leverage on the overall averages than would the ceiling on mandatory travel in th intra-District element. This reflects (i) the fact that extra-District transportation is entirely concerned with Minority pupils, who have the higher averages on the intra-District side of the Plans; and (ii) the growth in extra-District transportatio over the period, as against the shrinkage of intra-District mandatory transportation.

Chart 112 forecasts the average travel time of pupils mandatorily transported. It is reasonably self-explanatory.

Summary of Quantifiable Findings

	Plan G1	Plan G2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	- 50,000 (or 9%)	- 66,000 (or 11%)
Projected Total	529,000	513,000
1984-85		
Expected	597,000	597,000
Flight	- 51,000 (or 9%)	- 53.000 (or 9%)
Desegregated Schools		
1980-81	186 (or 28%)	224 (or 33%)
1984-85	185 (or 24%)	158 (or 24%)

	Plan G1	Plan G2
Segregated Schools		
1980-81		
RIWS	76	40
RIMS	399	398
Total	475 (or 72%)	438 (or 66%)
1984-85		
RIWS	27	24
RIMS	472	475
Total	499 (or 75%)	499 (or 75%)
Desegregated Pupils (inside and outside the LAUSD		
1980-81	147,000 (or 28%)	172,000 (or 33%)
1984-85	125,000 (or 23%)	127,000 (or 23%)
Segregated Pupils		
1980-81	382,000 (or 72%)	341,000 (or 67%)
1984-85	422,000 (or 77%)	416,000 (or 77%)
Magnet Schools		
1980-81	60	61
1984-85	56	56
Magnet Pupils		
1980-81		
Desegregated	3,000 (or 25%)	4,000 (or 25%)
Segregated	9,000 (or 75%)	9,000 (or 75%)
Total	12,000	13,000
1984-85		
Desegregated	2,000 (or 20%)	2,000 (or 20%)
Segregated	8,000 (or 80%)	8,000 (or 80%)
Total	10,000	10,000

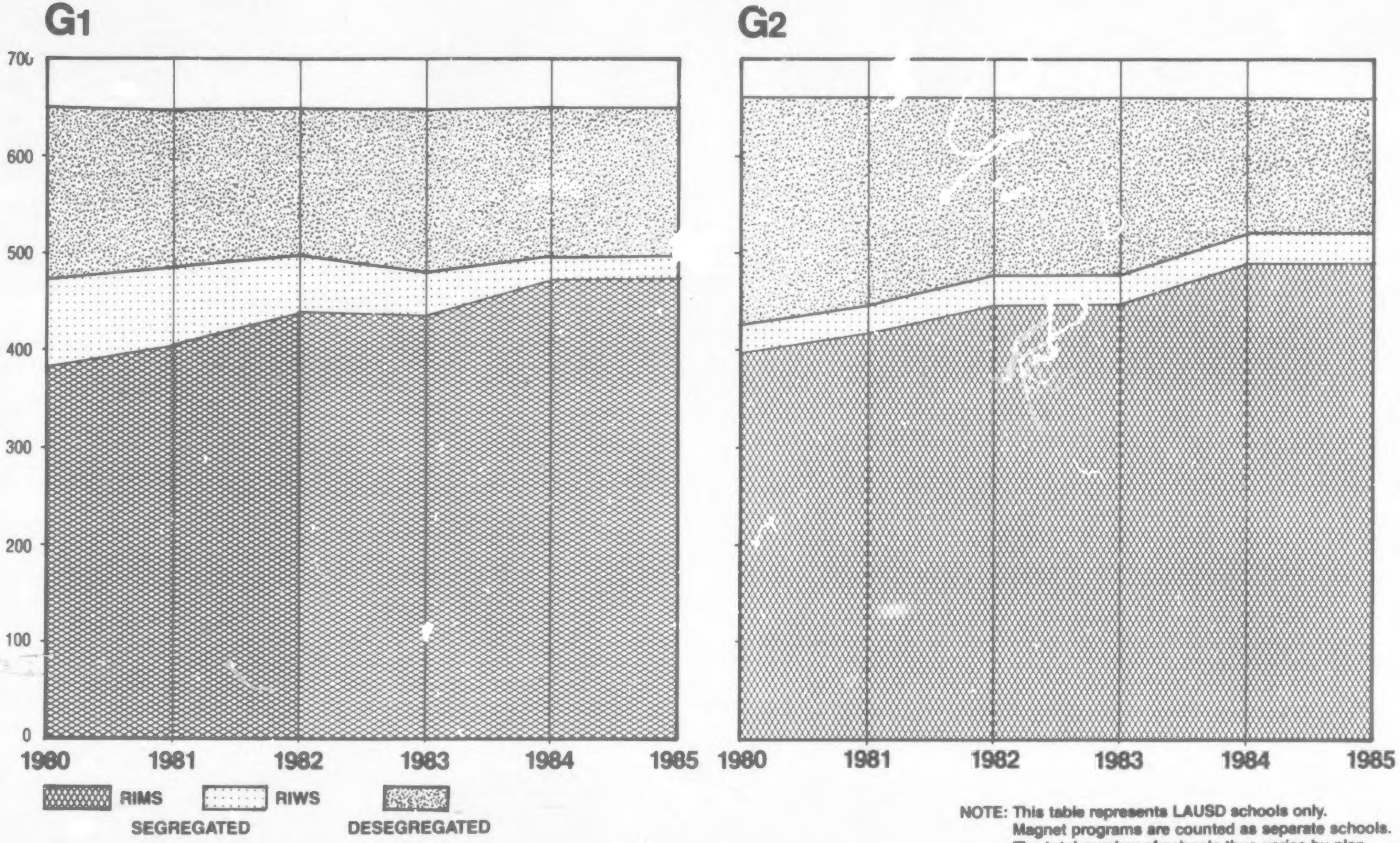
	Plan G1	Plan G2
PWT Pupils		
1980-81		
Black	12,000 (or 61%)	12,000 (or 61%)
Hispanic	8,000 (or 39%)	8,000 (or 39)
Total	20,000	20,000
1984-85		
Black	10,000 (or 60%)	10,000 (or 60%)
Hispanic	7,000 (or 40%)	7,000 (or 40%)
Total	17,000	17,000
Total Pupils Transported		
1980-81		
Voluntary	32,000 (or 64%)	32,000 (or 58%)
Mandatory	17,000 (or 34%)	23,000 (or 42%)
Total	50,000	55,000
1984-85		
Voluntary	28,000 (or 55%)	28,000 (or 55%)
Mandatory	23,000 (or 45%)	23,000 (or 45%)
Total	51,000	51,000
Average Travel Times		
1980-81		
Overall	37 minutes	38 minutes
Black	44	44
Hispanic	33	35
Other Minority	32	35
White	31	37
1984-85		
Overall	37	38
Black	45	44
Hispanic	34	35
Other Minority	30	30
White	30	33

CHARTS FOR VARIATIONS G1 AND G2

CHART 99

AREA RESOURCE UTILIZATION PLANS G1 AND G2

PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

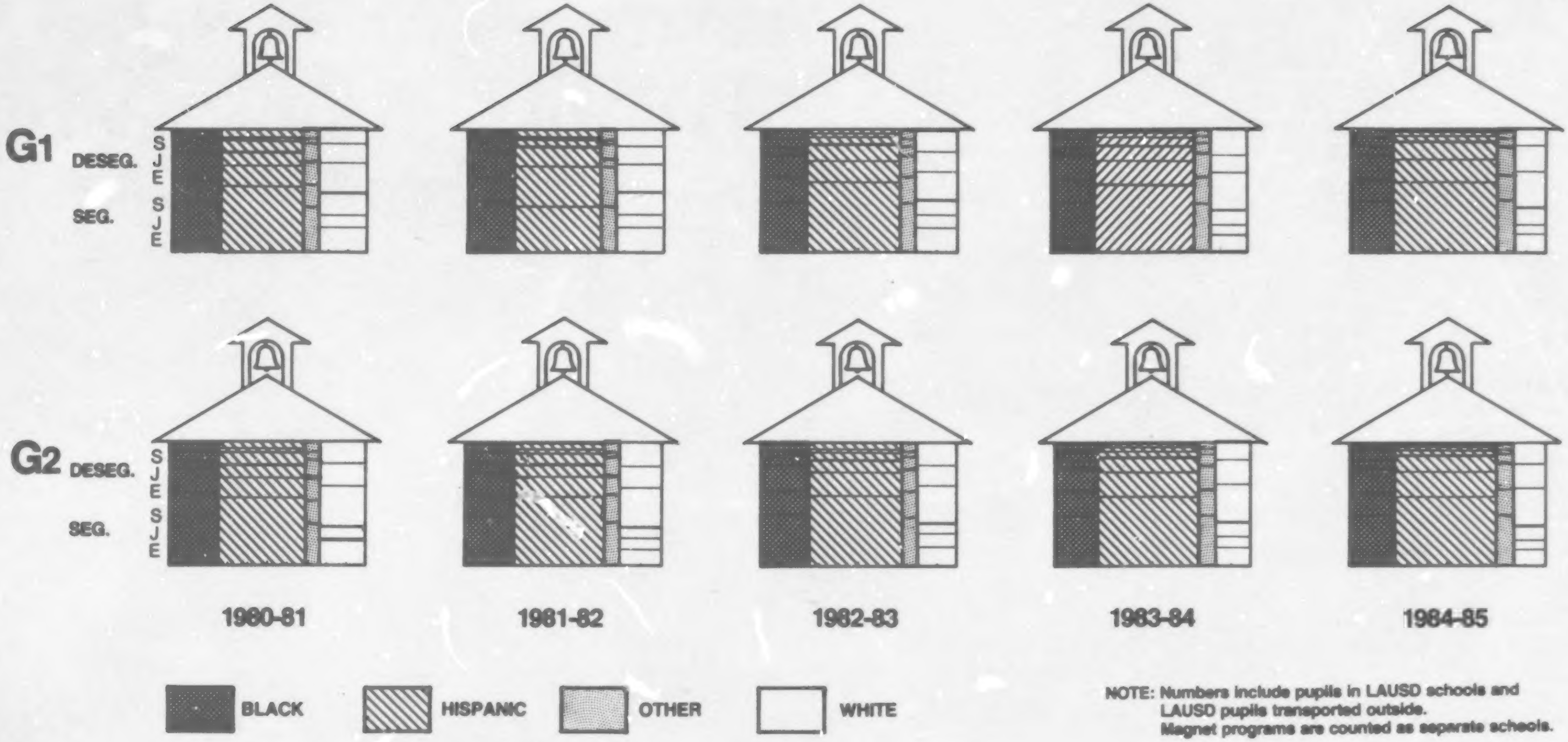


NOTE: This table represents LAUSD schools only.
Magnet programs are counted as separate schools.
The total number of schools thus varies by plan.

CHART 100

AREA RESOURCE UTILIZATION PLANS G_1 AND G_2

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



NOTE: Numbers include pupils in LAUSD schools and
LAUSD pupils transported outside.
Magnet programs are counted as separate schools.

CHART 101

AREA RESOURCE UTILIZATION PLANS G1 AND G2 PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

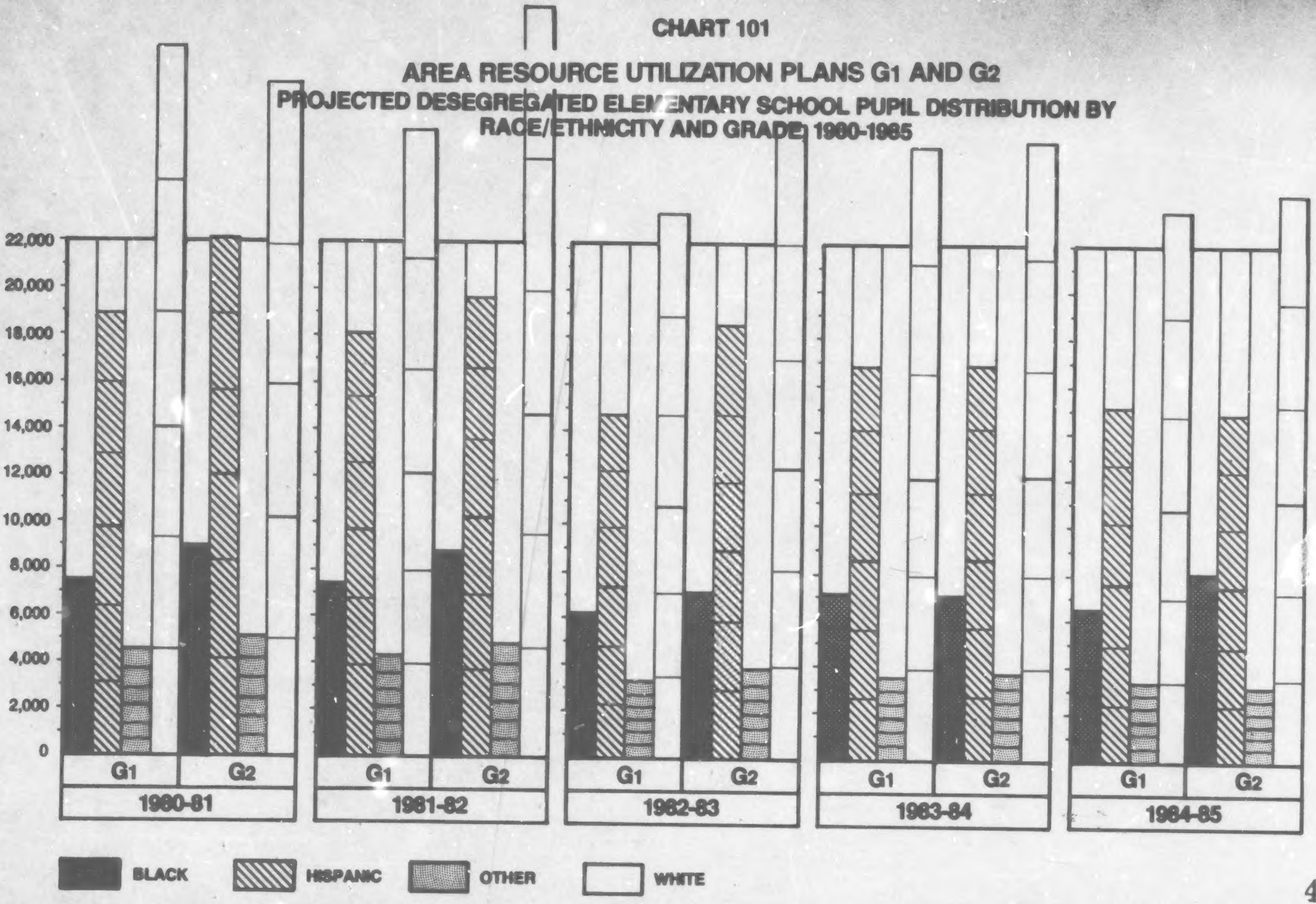
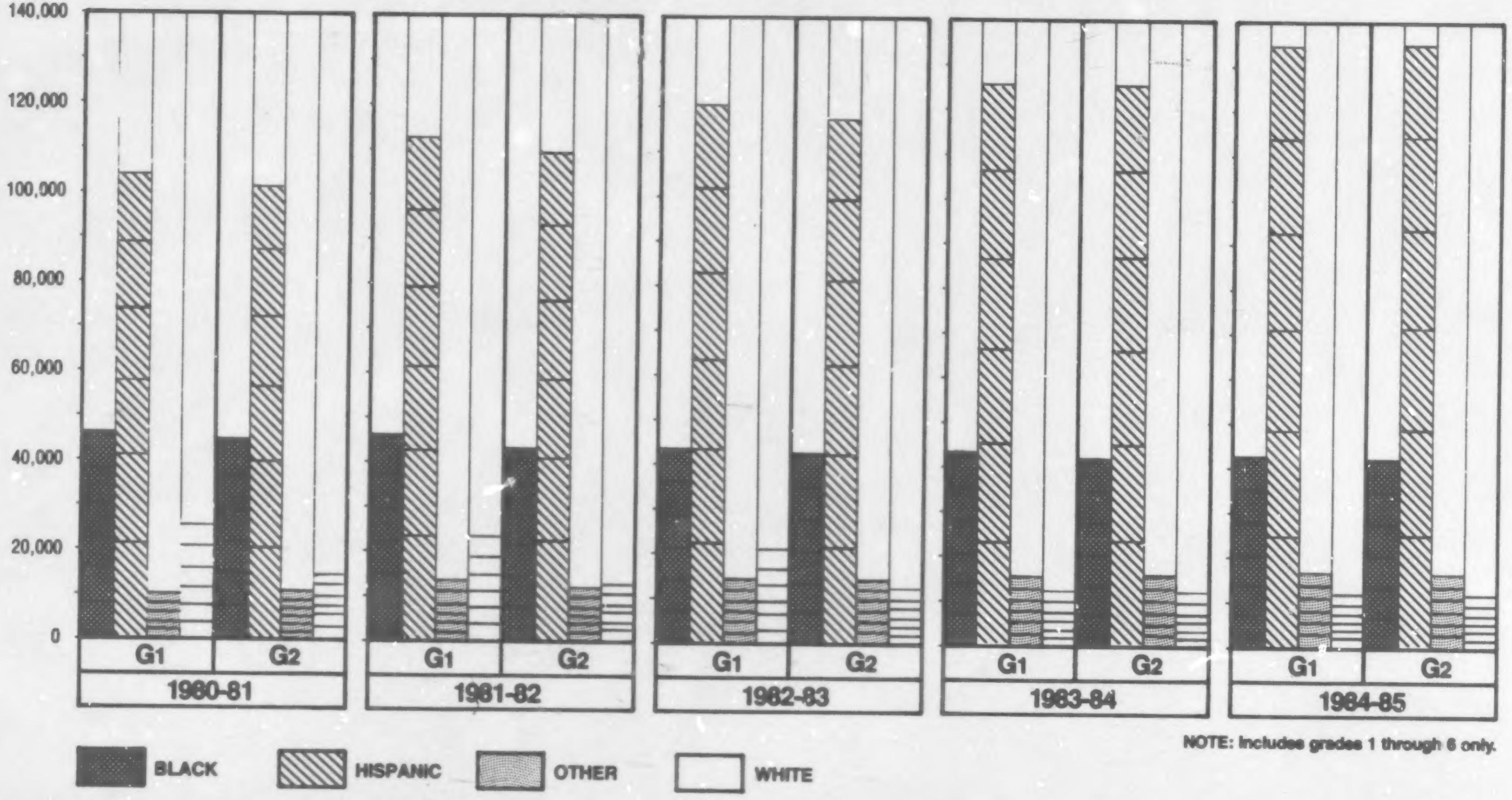


CHART 101 A

AREA RESOURCE UTILIZATION PLANS G_1 AND G_2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



NOTE: Includes grades 1 through 6 only.

CHART 102

AREA RESOURCE UTILIZATION PLANS G1 AND G2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

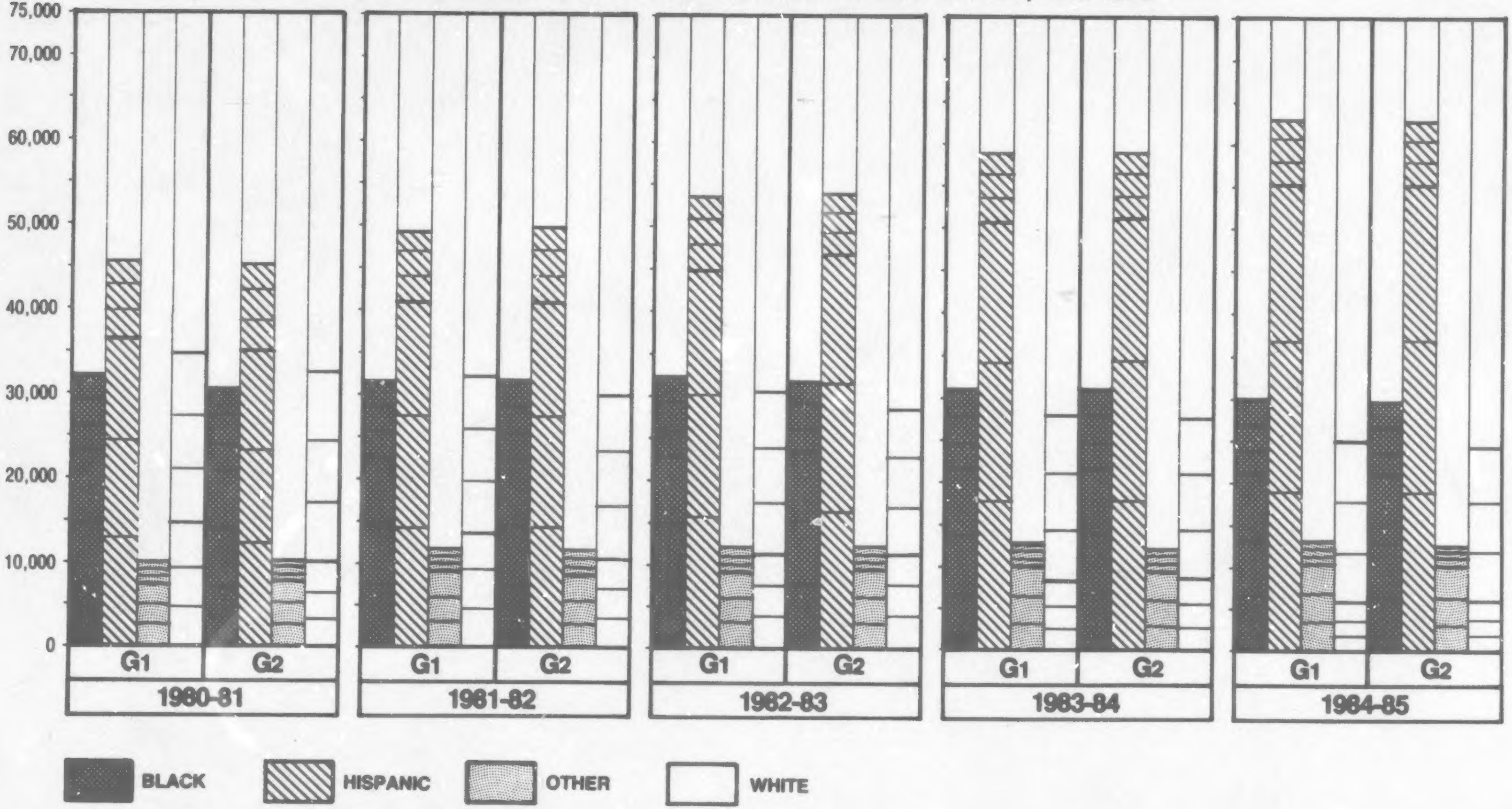


CHART 103

AREA RESOURCE UTILIZATION PLANS G_1 AND G_2

PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985

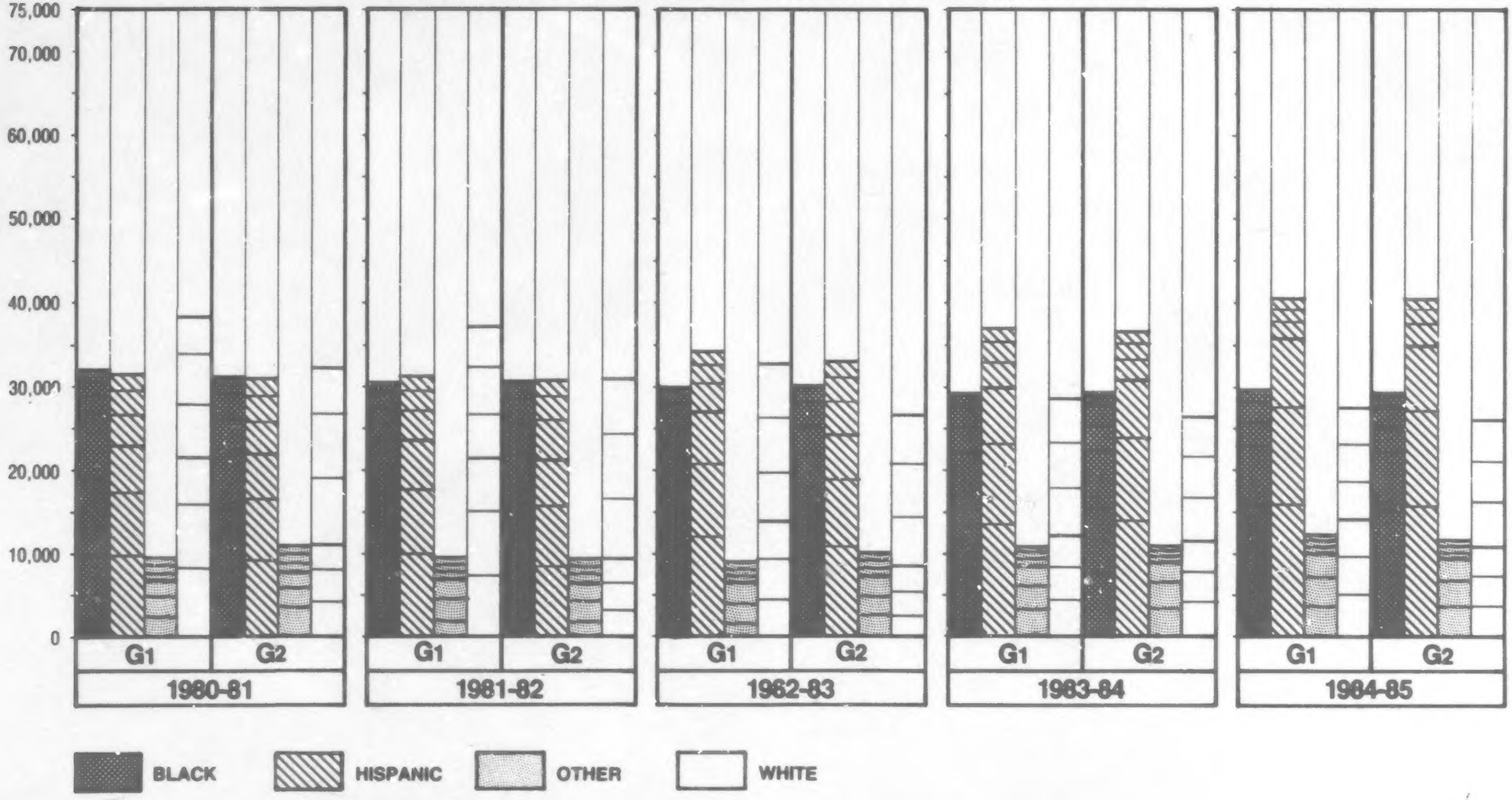


CHART 104

AREA RESOURCE UTILIZATION PLANS G1 AND G2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	G1	G2	G1	G2	G1	G2	G1	G2	G1	G2
1980-81	17	1	27	14	136	167	39	49	249	238
1981-82	12	1	27	10	124	158	42	39	261	261
1982-83	8	1	22	8	109	133	42	44	285	280
1983-84	2	1	13	14	127	133	31	33	290	285
1984-85	1	1	9	7	115	116	27	31	313	310

NOTE: Magnet programs are counted as separate schools.

CHART 105

AREA RESOURCE UTILIZATION PLANS G_1 AND G_2

PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	G_1	G_2	G_1	G_2	G_1	G_2	G_1	G_2	G_1	G_2
1980-81	0	0	6	3	28	31	12	10	49	51
1981-82	0	0	5	3	26	28	9	9	55	55
1982-83	0	0	4	3	25	24	7	10	58	58
1983-84	0	0	2	2	24	24	8	9	60	59
1984-85	0	0	1	1	22	22	7	9	64	62

NOTE: Magnet programs are counted as separate schools.

CHART 106

AREA RESOURCE UTILIZATION PLANS G_1 AND G_2

PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	G_1	G_2	G_1	G_2	G_1	G_2	G_1	G_2	G_1	G_2
1980-81	13	11	13	11	22	26	5	5	45	45
1981-82	14	12	12	8	20	26	6	5	46	47
1982-83	12	11	8	6	24	27	5	5	49	49
1983-84	10	10	6	6	26	23	7	10	49	49
1984-85	1	10	5	5	21	20	11	12	50	51

NOTE: Magnet programs are counted as separate schools.

CHART 107

AREA RESOURCE UTILIZATION PLAN G1
PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

None

1980-83 ONLY

Pairs:

Andasol - Morningside
Apperson - Glenwood
Balboa - Noble
*Beachy - Plummer
Beckford - Filmore
*Bellagio - Palms
Brainard - Mt. View
*Brentwood Science - Broadway
*Camellia - Gledhill
*Canoga Park - Hart
*Carthay Center - Warner
Castlebay Lane - Victory
*Charnock - Westwood
*Cheremoya - Van Ness
*Cohasset - Lankershim
Darby - Vaughn
Dearborn - Vena
*Dyer - Knollwood
El Oro - Osceola
Emelita - Van Nuys
Fernangeles - Van Gogh
Granada - Haddon
*Grant - Toluca Lake
Hesby - Selma
*Kentwood - Loyola Village
Lania - Sterry
Mayall - Roscoe
*Queen Anne - 3rd Street
Richland - Sherman Oaks
Sylvan Park - Wilbur
*Lawrence JHS - San Fernando JHS
*Le Conte JHS - Reed JHS
*Maclay JHS - Northridge JHS
*Mt. Gleason JHS - Pacoima JHS
Grant SHS - Hollywood SHS
*Kennedy SHS - San Fernando SHS

Clusters:

Telfair - Devonshire - Lemay
O'Melveny - Anatola - Germain
*Sharp - Calahan - Reseda
San Fernando - Gault - Superior
Pacoima - Lorne - Topeka Drive

Midsites:

Burbank - Alexandria - Rhoda
Colfax - Allesandro - Nestle
Kester - Bertrand - Brockton
*Dixie Canyon - Collier - Rosemont
Monlux - Dayton - Encino
Cantergury - Garden Grove - Montague
*Riverside - Ramona - Vanalden
Chandler - Santa Monica - Tarzana
*Marquez - Topanga - Westminster
Millikan JHS - Sutter JHS - Virgil JHS
No. Hollywood SHS - Birmingham SHS - Fairfax SHS

1983-85 ONLY

Pairs:

Andasol - Filmore
Balboa - Harding
Beachy - Germain
*Brainard - Pinewood
Calahan - Vanalden
Cantara - Wilbur
Canterbury - Topeka Drive
*Carpenter - Oxnard
Castlebay Lane - Osceola
Collier - Van Nuys
Darby - Gridley
Dearborn - El Dorado
*Dixie Canyon - Lankershim
Emelita - Vena
*Enadia - Highlander
Encino - Ranchito
*Fair - Riverside
Fullbright - Hazeltine
*Area 7 Alternative - Mt. Washington
Hart - Nevada
*Haskell - Newcastle
Herrick - Van Gogh
Hesby - Valley View
*Langdon - Melvin
*Laurel - Roscomare
Limerick - Noble
Napa - Pomelo
Nestle - Parthenia
*Anchorage - Coeur D'Alene
*Oso - Rinaldi
*Plummer - Winnetka
Reseda - Woodlake
Sunny Brae - Sylvan Park
*De Portola SHS - Northridge JHS
*Frost JHS - San Fernando JHS
*Parkman JHS - Sepulveda JHS
Chatsworth SHS - San Fernando SHS
Reseda SHS - Van Nuys SHS

Midsites:

Sherman Oaks - Calabash - Sterry
Anatola - Capistrano - O'Melveny
Granada - Chatsworth - Sylmar
*Lanai - Richland - Serrania
Francis Poly SHS - Hollywood SHS - Verdugo Hills SHS

* means grouping would never be activated during projection period.

AREA RESOURCE UTILIZATION PLAN G1
LIST OF LAUSD SENDING SCHOOLS

1980

Ambler
Amestoy
Annalee
Annandale
Atwater
Avalon Gardens
Bandini
Barton Hill
Bonita
Braddock
Broad Avenue
Broadacres
Buchanan
Saturn
Cabrillo
Carson
Catskill
Century Park
Chapman
Cimarron
City Terrace
Clifford
Corona
Crescent Heights
Del Amo
Delevan
Denker
Dolores
Dominguez
Eastman
Elizabeth
Fenton
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Fries
Gardena
Garvanza
Glassell Park
Glenfeliz
Grape
Gulf
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
La Salle
Leapwood
Liberty
Logan
Loma Vista
Manhattan
Murchison
Normont
118th Street
186th Street
153rd Street
107th Street
135th Street
122nd Street
Park Avenue
Park Western
Playa Del Rey
Purche
Ritter
Rockdale
Rowan
San Gabriel
Shenandoah
Short
Sierra Park
Sierra Vista
Stanford
State
Towne
Tweedy
232nd Street
Van Deene
Victoria
Vine
West Athens
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Hamilton SHS
Lock SHS
Marshall SHS
South Gate SHS
Washington SHS

1983

Ambler
Amestoy
Annalee
Armita
Atwater
Avalon Gardens
Bandini
Barton Hill
Beethoven
Bonita
Braddock
Broad Avenue
Broadacres
Broadway
Bryson
Cabrillo
Camellia
Canfield
Caroldale
Carson
Carthay Center
Catskill
Century Park
Chapman
Charnock
Cimarron
City Terrace
Del Amo
Delevan
Denker
Dolores
Dominguez
Eastman
Elizabeth
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Fries
Gardena
Garvanza
Glassell Park
Glenwood
Grape
Gulf
Harbor City
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
La Salle
Leapwood
Liberty
Loma Vista
Lorena
Loyola Village
Manhattan
Murchison
98th Street
Normont
186th Street
156th Street
153rd Street
135th Street
122nd Street
Osage
Park Avenue
Park Western
President
Purche
Rockdale
Roscoe
Rowan
San Gabriel
Selma
Sierra Park
Sierra Vista
South Shores
Stanford
State
Stonehurst
Towne
Tweedy
232nd Place
Meyler
Van Deene
Victoria
Victory
West Athens
White Point
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegia JHS
Carver JHS
Clay JHS
Curtis JHS
Dodson JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Hamilton SHS
Locke SHS
Marshall SHS
Washington SHS
Westchester SHS

CHART 108

AREA RESOURCE UTILIZATION PLAN G2
PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Dearborn - Vena

1980-83 ONLY

Pairs:

*Alexandria - Oakdale Avenue
*Allesandro - Gledhill
Anatola - Noble
Andasol - Camellia
Annandale - Sherman Oaks
Apperson - Yorkdale
Atwater - Nestle
Balboa - Roscoe
Beachy - Calahan
Beckford - Glenfeliz
*Bellagio - Crescent Heights
*Bertrand - Van Nuys
*Blythe - Palms
Braddock - Wilbur
Brainard - Superior
*Brentwood Science - Broadway
Brockton - Newcastle
*Saturn - Westwood
*Cahuenga - Toluca Lake
Calabash - Grant
*Canoga Park
Capistrano - Filmore
Carthay Center - Gault
Castlebay Lane - Sylvan Park
Charnock - Lorne
Chatsworth - O'Melveny
*Cheremoya - Van Ness
*Clifford - Cohasset
Coliseum - Lanai
Collier - Dayton
Darby - Vaughn
Delevan - Knollwood
Devonshire - Fernangeles
Dyer - El Oro
Elysian - Encino
Emelita - Virginia
Fenton - Germain
Fullbright - Sterry
Garden Grove - Lockwood
Glenwood - Mayall
Granada - Morningside
Haddon - Oso
Hesby - Loyola Village
*Kentwood - 186th Street
*Lankershim - Reseda
Lemay - Playa Del Rey
Limerick - San Fernando
Mayberry - Vanalden
Melvin - Selma
Montague - Nevada
Mt. View - Rockdale
Osceola - Van Gogh
*Plummer - Toland Way
*Queen Anne - 3rd Street
Ramona - Serrania
*Rhoda - Solano
*Richland - Tarzana
Santa Monica - Sunny Brae
*Shirley - Short
Topanga - Westminster
Topeka Drive - Victory
Vine - Woodlake
*Warner - Wilshire Crest
*Bancroft JHS - Reed JHS
Columbus JHS - Pacoima JHS
*Hughes JHS - Le Conte JHS
*Irving JHS - Mt. Gleason JHS
*Lawrence JHS - Maclay JHS
*Northridge JHS - Webster JHS
*San Fernando JHS - Sutter JHS
*Birmingham SHS - Hamilton SHS
*Fairfax SHS - Monroe SHS
Franklin SHS - Verdugo Hills SHS
*Granada Hills - San Fernando SHS
*Grant SHS - Lincoln SHS
Hollywood SHS - Reseda SHS
*Kennedy SHS - Marshall SHS

Clusters:

Pacoima - Calvert - Enadia
Sharp - Haynes - Winnetka
Telfair - Hamlin - Woodland Hills

Midsites:

Valley Alternative - Baldwin Hills - Lockhurst
Kester - Bridge - Platt Ranch
Chandler - Cortez - Welby
Stagg - Highlander - Shenandoah
Bassett - Hoover - Justice
Parthenia - Pomelo - Stoner
*Sequoia JHS - Hale JHS - Pastuer JHS
Van Nuys SHS - Belmont SHS - Cleveland SHS
Francis Poly SHS - Chatsworth SHS - Los Angeles SHS
No. Hollywood SHS - Roosevelt SHS - Taft SHS

1983-85 ONLY

Pairs:

* Anatola - Parthenia
Andasol - Filmore
* Arminta - Sherman Oaks
Balboa - Plummer
Beachy - Limerick
* Brainard - Pinewood
Brockton - Encino
Calabash - Langdon
Calahan - Capistrano
Cantara - Pomelo
Canterbury - Topeka Drive
* Carpenter - Oxnard
Castlebay Lane - Herrick
Chatsworth - Noble
Collier - Ranchito
Darby - Rinaldi
* Dixie Canyon - Sylvan Park
Dyer - Germain
* Enadia - Highlander
Fair - Nestle
Fullbright - Reseda
Gridley - Van Gogh
* Area 7 Alternative - Mt. Washington
Hamlin - Topanga
Hart - Nevada
Haskell - Hesby
Hazeltine - Woodland Hills
Lanai - Van Nuys
* Lankershim - Riverside
* Laurel - Roscomare
Napa - Sunny Brae
* Anchorage - Coeur D'Alene

Selma - Serrania
Sterry - Wilbur
Valley View - Welby
De Portola JHS - Sutter JHS
*Frost JHS - San Fernando JHS
*Parkman JHS - Sepulveda JHS
*Canoga Park SHS - Van Nuys SHS
Chatsworth SHS - Monroe SHS
El Camino SHS - San Fernando SHS
*Francis Poly SHS - Verdugo Hills SHS

* means grouping would never be activated during projection period.

AREA RESOURCE UTILIZATION PLAN G2
LIST OF LAUSD SENDING SCHOOLS

1980

Albion
Alta Loma
Ambler
Amestoy
Annalee
Avalon Gardens
Bandini
Barton Hill
Bonita
Broad Avenue
Broadacres
Buchanan
Cabrillo
Carson
Catskill
Century Park
Chapman
Cienega
Cimarron
City Terrace
Corona
Del Amo
Denker
Dolores
Dominguez
Dorris
Eastman
Elizabeth
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Fries
Gardena
Garvanza
Glassell Park
Grape
Gulf
Harrison
Hawaiian
Heliotrope
Hillcrest
Hillside
Humphreys
Hyde Park
Lane
La Salle
Leapwood
Liberty
Logan
Loma Vista
Loreto
Manchester
Manhattan
Marvin
Micheltorena
Monte Vista
Murchison
Normont
118th Street
153rd Street
107th Street
135th Street
122nd Street
Park Avenue
Park Western
Purche
Ritter
Rowan
San Gabriel
San Pascual
Sierra Park
Sierra Vista
Stanford
State
Towne
Tweedy
232nd Place
Van Deene
Victoria
West Athens
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Carson SHS
Crenshaw SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Locke SHS
South Gate SHS
Washington SHS

1983

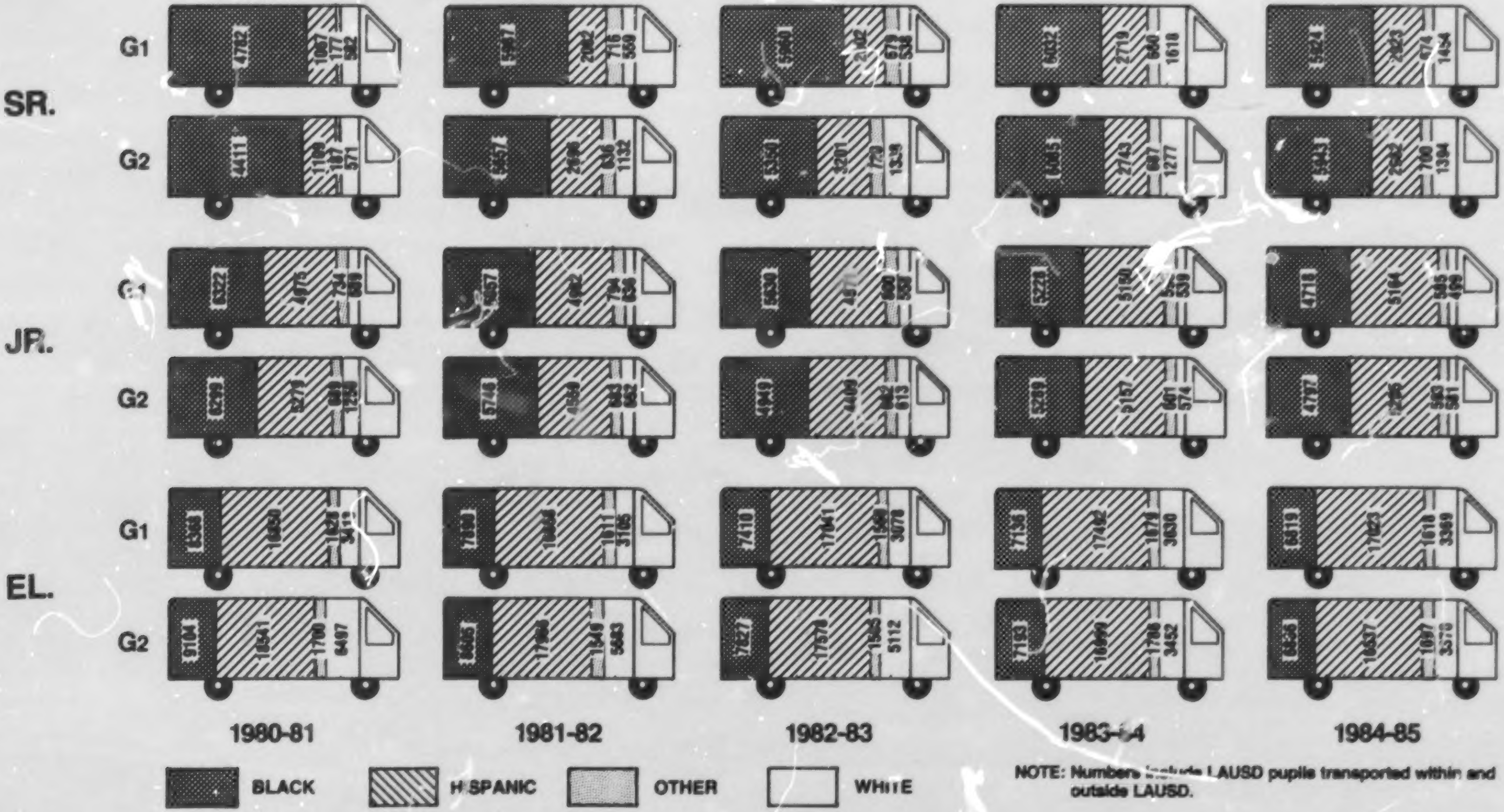
Ambler
Amestoy
Annalee
Atwater
Avalon Gardens
Bandini
Barton Hill
Bonita
Braddock
Broad
Broadacres
Broadway
Bryson
Cabrillo
Camellia
Canfield
Caroldale
Carson
Carthay Center
Catksill
Century Park
Chapman
Charnock
Cimarron
City Terrace
Del Amo
Delevan
Denker
Dolores
Dominguez
Eastman
Elizabeth
Fernangeles
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Fries
Gardena

Garvanza
Glassell Park
Glenwood
Grant
Grape
Gulf
Harbor City
Harrison
Hawaiian
Haynes
Heliotrope
Humphreys
Hyde Park
Lane
La Salle
Leapwood
Liberty
Loma Vista
Lorena
Loyola Village
Manhattan
Murchison
98th Street
Normont
186th Street
156th Street
153rd Street
135th Street
122nd Street
Osage
Park Avenue
Park Western
President
Purche
Richland
Rockdale
Roscoe
Rowan
San Gabriel
Sierra Park
Sierra Vista
South Shores
Stanford
State
Stonehurst
Towne
Tweedy
232nd Place
Heyler
Van Deene
Victoria
Victory
West Athens
White Point
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
Dodson JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Hamilton SHS
Hollywood SHS
Loc[illegible]
Ma[illegible] SHS
Washington SHS
Westchester SHS

CHART 109

AREA RESOURCE UTILIZATION PLANS G1 AND G2

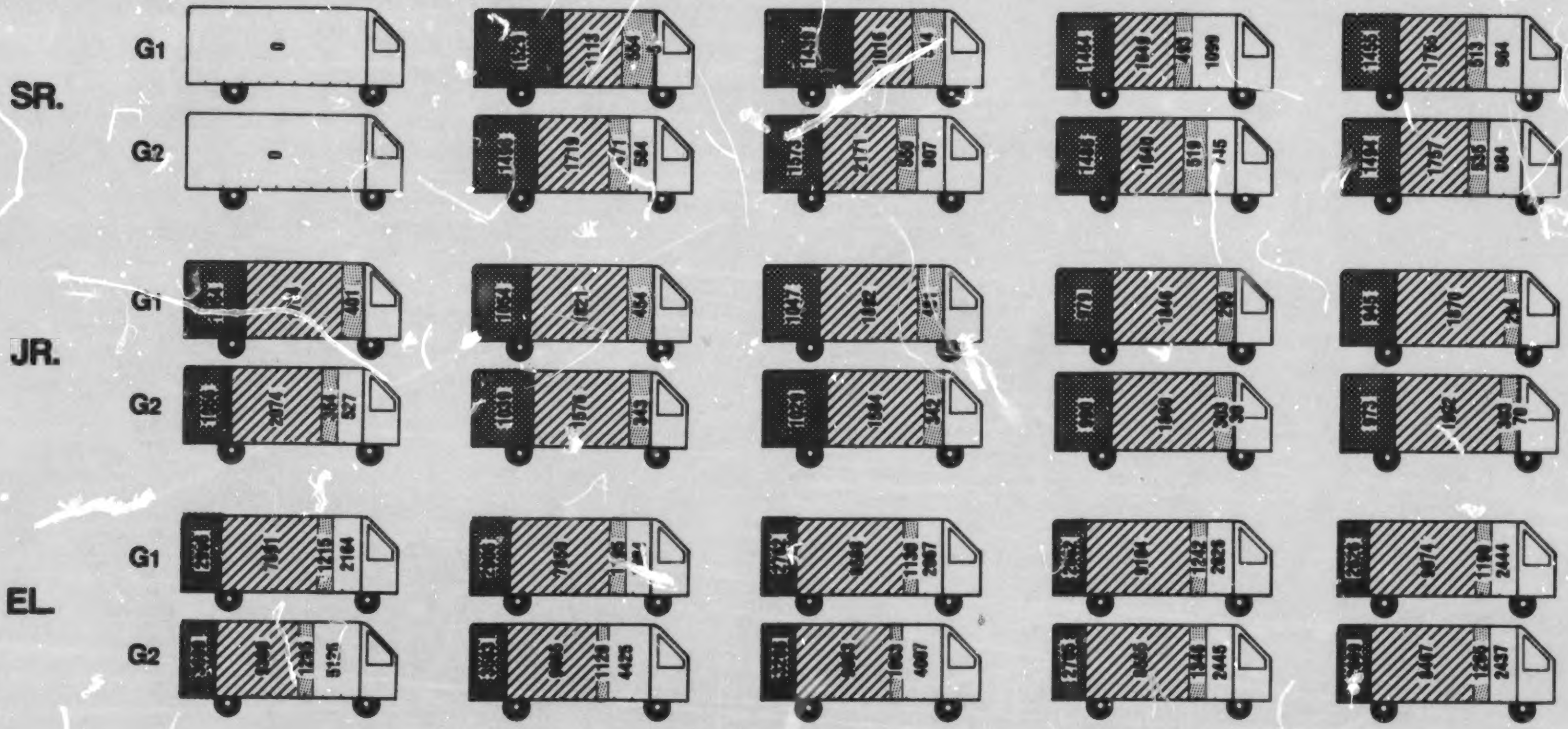
PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



NOTE: Numbers include LAUSD pupils transported within and outside LAUSD.

CHART 110

AREA RESOURCE UTILIZATION PLANS G1 AND G2
PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985



■ BLACK ▨ HISPANIC ▒ OTHER ☐ WHITE

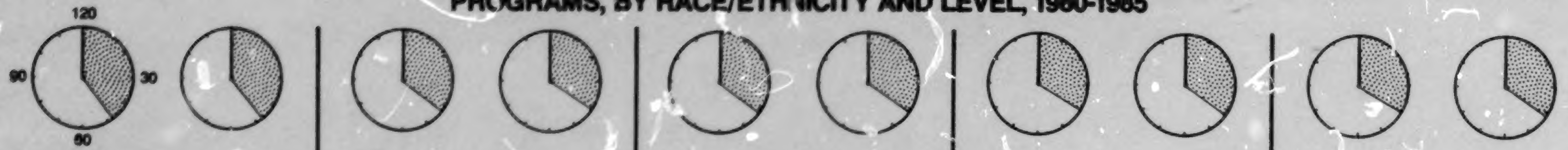
NOTE: Numbers include LAUSD pupils transported within and outside LAUSD.

CHART 11

AREA RESOURCE UTILIZATION PLANS G1 AND G2

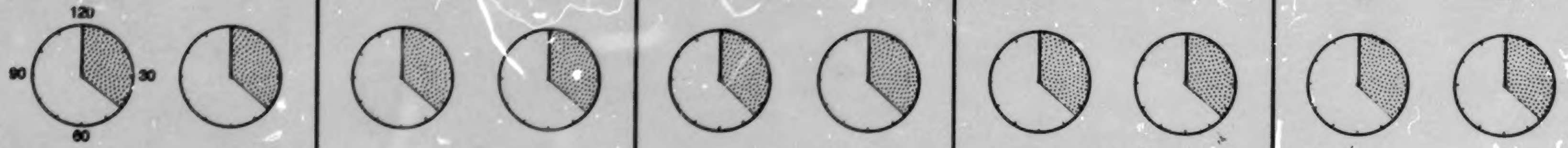
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

SR.



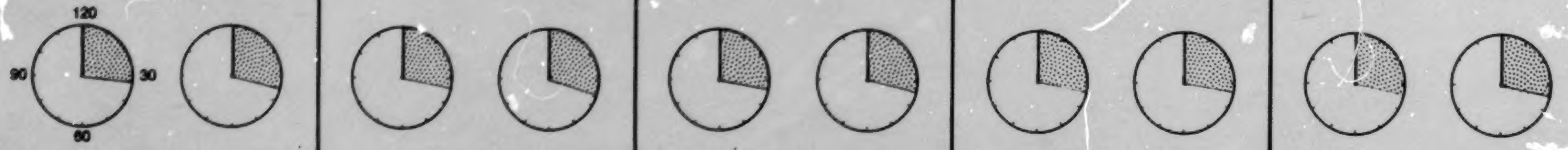
	1980-81 G1	1980-81 G2	1981-82 G1	1981-82 G2	1982-83 G1	1982-83 G2	1983-84 G1	1983-84 G2	1984-85 G1	1984-85 G2
BLACK	54 MIN.	53	48	47	48	47	49	48	48	47
HISPANIC	34 MIN.	34	31	34	32	36	31	34	31	33
OTHER	37 MIN.	37	29	32	29	33	29	29	28	29
WHITE	34 MIN.	35	34	36	34	[illegible]	30	38	30	37

JR.



	1980-81 G1	1980-81 G2	1981-82 G1	1981-82 G2	1982-83 G1	1982-83 G2	1983-84 G1	1983-84 G2	1984-85 G1	1984-85 G2
BLACK	48 MIN.	48	49	50	50	51	50	50	49	49
HISPANIC	38 MIN.	39	39	39	40	40	40	40	41	40
OTHER	32 MIN.	32	32	32	32	32	32	32	32	32
WHITE	35 MIN.	38	34	35	34	35	34	34	35	33

EL.

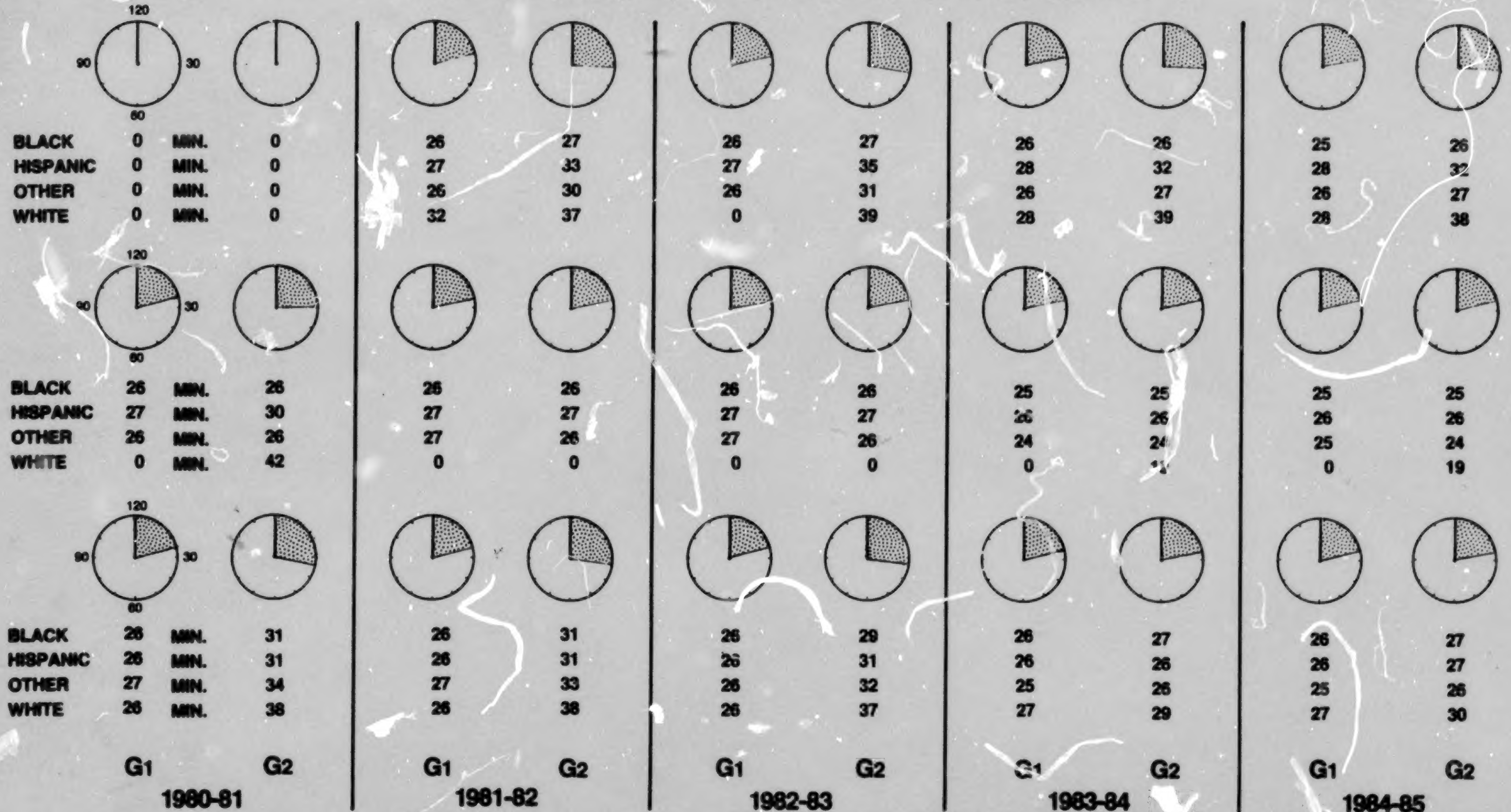


	1980-81 G1	1980-81 G2	1981-82 G1	1981-82 G2	1982-83 G1	1982-83 G2	1983-84 G1	1983-84 G2	1984-85 G1	1984-85 G2
BLACK	35 MIN.	36	36	37	37	38	38	38	39	38
HISPANIC	32 MIN.	34	32	34	32	35	32	33	33	33
OTHER	31 MIN.	36	31	36	31	35	30	30	30	30
WHITE	30 MIN.	38	30	38	29	37	30	31	30	32

NOTE: Numbers include travel time for LAUSD pupils transported within and outside LAUSD.

CHART 112

AREA RESOURCE UTILIZATION PLANS G1 AND G2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED, BY RACE/ETHNICITY AND LEVEL, 1980-1985



		1980-81 G1		1980-81 G2	1981-82 G1	1981-82 G2	1982-83 G1	1982-83 G2	1983-84 G1	1983-84 G2	1984-85 G1	1984-85 G2
SR.	BLACK	0	MIN.	0	26	27	26	27	26	26	25	26
	HISPANIC	0	MIN.	0	27	33	27	35	28	32	28	32
	OTHER	0	MIN.	0	26	30	26	31	26	27	26	27
	WHITE	0	MIN.	0	32	37	0	39	28	39	28	38
JR.	BLACK	26	MIN.	26	26	26	26	26	25	25	25	25
	HISPANIC	27	MIN.	30	27	27	27	27	26	26	26	26
	OTHER	26	MIN.	26	27	26	27	26	24	24	25	24
	WHITE	0	MIN.	42	0	0	0	0	0	[illegible]	0	19
EL.	BLACK	26	MIN.	31	26	31	26	29	26	27	26	27
	HISPANIC	26	MIN.	31	26	31	26	31	26	26	26	27
	OTHER	27	MIN.	34	27	33	26	32	25	26	25	26
	WHITE	26	MIN.	38	26	38	26	37	27	29	27	30

NOTE: Numbers include travel time for LAUSD pupils transported within and outside LAUSD.

Variations H1 and H2

Basic Ground Rules

Variations H1 and H2 assume that the LAUSD will have embarked upon the voluntary/mandatory desegregation Plan projected under the labels E1 and E2 in Part V. That is, a Plan that spreads the mandatory elements of the desegregation program gradually through the grades, adding two grades per year, so that all of them are incorporated by the fourth year of the projection period. This Plan permits application for and assignment to only the Magnet portion of the voluntary aspects of the program before the racial/ethnic balance of each school is assessed and its eligibility for mandatory linkage is determined. Finally, it exempts schools from mandatory linkage only when, including the effects of voluntary transfers, the school meets the basic "Desegregated" standard (at least 40% each of Whites and Combined Minorities).

Difference Between the Variations

Plans H1 and H2 differ from each other in only one respect:

-- Plan H1 is built upon voluntary/mandatory variation E1, which imposes a 30-minute limitation on the travel time of any mandatorily-assigned pupil who is transported to another LAUSD school.

-- Plan H2 is built upon voluntary/mandatory variation E2, which imposes a 45-minute limitation on the travel time of any mandatorily-assigned pupil who is transported to another LAUSD school.

It will be recalled that in both cases there is a 30-minute limit on the travel time of any pupil who is mandatorily-assigned to a school outside the LAUSD.

Number of Segregated and Desgregated Schools

Chart 113 shows the number of District schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. (The characteristics of the model do not permit projection of the number of neighboring district schools that would also be Desegregated by this Plan. However, the model does control to be certain that no extra-District school is made Segregated by an inflow of LAUSD pupils.)

In brief, as the Chart shows:

- -- In Plan H1 the number of Desegregated LAUSD schools starts at 194 (or 29%) in 1980-81 and falls to 168 (or 25%) by 1984-85. The corresponding numbers for Plan H2 are 246 (or 37%) and 185 (or 28%).
- -- In Plan H1 the number of Segregated schools starts at 467 (or 70%) in 1980-81 and rises to 491 (or 74%) by 1984-85. The corresponding numbers for Plan H2 are 418 (or 62%) and 473 (or 71%).
- -- In Plan H1, within the "Segregated" category, the number of RIWS declines from 67 to 20 by 1985, while RIMS increase from 400 to 471. The corresponding figures for Plan H2 are 25 to 15 in the case of RIWS and 393 to 458 in the case of RIMS.

Overall, the simulation indicates that the additive area-wide element in the two Plans would not result in a noticeable increase in the aggregate number of Desegregated LAUSD schools that would have resulted from the operation of the intra-District element alone. Indeed, in some years of the projection period, the area-wide Plans would actually desegregate fewer total schools.

This is not the case with the number of pupils afforded a Desegregated educational experience outside the District, as will be noted below, and it is also true that the bulk of these pupils will come from RIMS, which are not reached in any substantial numbers by any intra-District voluntary/mandatory plan. Nevertheless, because these area-wide Plans do not bring any Whites into the RIMS, those schools do not become Desegregated by the loss of a number of Minority pupils. In most cases, they simply become smaller in total enrollment.

Thus, neither Plan would desegregate more than 37% of all LAUSD schools in 1980-81, nor retain more than 28% of them in that category in 1984-85. Under both Plans the prospect is for decline from the first year peak during the next two years, followed by a mild upsurge in the fourth, and a sharp drop in the fifth.

The model emerges in some years with a lower projected total of Desegregated schools for the area-wide Plans than for the intra-District Plans to which they are added because of the phenomenon of flight. These simulations assume that announcements of mandatory pupil assignments are made in the spring preceding the start of the school year when they are to take effect. Pupils (or their parents) then make their decisions with respect to the following fall. The flight sub-model forecasts how many of them will decide to leave the LAUSD. When the flight sub-model is applied to the larger number of schools that would be involved in an area-wide Plan (as compared with its intra-District component alone), more pupils are predicted to disappear from the LAUSD. (It should be remembered that the 1978-80 flight is not an exclusively White phenomenon. Minority pupils have demonstrated flight rates that are substantially lower, but still significant.) These departures affect the number of applicants to Magnets and PWT even when, as in this case, Magnet acceptance generates exemption from mandatory assignment but PWT does not. The result in some years is failure to form or to establish racial/ethnic balance in a few of the schools that would have become Desegregated under the intra-

District element of the Plan operating alone. This loss of schools may be seen as the tradeoff required for the increment of pupils sent to the Desegregated suburban schools that the area-wide Plans result in.

Still, the simulation indicates that the immediate effect of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be an increase, ranging from modest to substantial, in the number of Desegregated LAUSD schools. Plan H1 would raise the current number from 173 to 194, a growth of 12%. Plan H2, on the other hand, would increase the current actual number to 246, a 42% enlargement. All of this increase, as noted above, would result from the intra-District element of the Plan. However, both Plans would accomplish substantial additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan H1 would desegregate 124 more schools in 1980-81 and 105 more in 1984-85 then would be expected in the absence of a plan. Plan H2 would desegregate 176 more schools in 1980-81 and 122 more in 1984-85 than would demographic forces operating without intervention by a plan.

The difference between the two Plans -- the lower intra-District travel time ceiling in Plan H1 -- has important effects. Convergence between the results of the two occurs, but slightly less rapidly than in the corresponding intra-District variations (E1 and E2) taken alone. Thus, the results of the two Plans are still 17 schools apart in the last year of the projection period. The difference between this margin and the E1-E2 difference is small (five schools), but a legitimate indicator of the effect of the area-wide element in Plans H1 and H2. The convergence is more pronounced with respect to the evolution of RIWS. The projected RIWS totals for the two Plans are only five schools apart in 1984-85, although they start the period 42 schools apart. The RIMS projections are never more than fourteen schools apart in any year of the projection period, but they are farther apart at the end of the period than at the beginning. Put another way, the results of the addition of an area-wide element to the E1-E2 intra-District configuration within the "Segregated" category of schools are similar for RIMS and rapidly convergent in the case of RIWS. Also, as already noted, many RIMS would be smaller in enrollment than would be the case if the area-wide aspect were not contained in the Plans.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by the two variations involve substantial pupil flight. And, since more schools are involved in mandatory transportion in one Plan than in the other, the flight estimates for the two differ. For Plan H1 the total 1984-85 student body is projected to be 531,000 pupils, of whom 117,000 (or 22%) would be Black, 287,000 (or 54%) would be Hispanic, 48,000 (or 9%) would be Other Minorities, and 80,000 (or 15%) would be White. The total pupil population represents a loss of 65,000 (or 12%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 33% drop below the demographic projection.

Plan H2 is projected to produce a total pupil population of 529,000 in 1984-85, of whom 117,000 (or 22%) would be Black, 288,000 (or 54%) Hispanic, 48,000 (or 9%) Other Minorities, and 77,000 (or 14%) White. The loss from demographic expectation would be 68,000 pupils (or 13%) below demographic projections. As is clear from these numbers, Plan H2 would involve about 4% more flight than Plan H1.

Chart 114 depicts the numbers of pupils attending schools, both inside and outside the LAUSD, in each category under each Plan during the projection period. In brief, it shows that:

-- Under Plan H1 in 1980-81, 138,000 LAUSD pupils (or 26%) would be enrolled in Desegregated schools both inside and outside the District. Of these, 3,600 (or 3%) would be attending schools in neighboring districts. The corresponding figures for Plan H2 are 160,000 (or 32%) and 2,800 (or 2%).

-- Under Plan H1 in 1980-81, 383,000 LAUSD pupils (or 74%) would be enrolled in Segregated schools both inside and outside the District. Of these 7,800 (or 2%) would attend schools in neighboring districts. The corresponding figures for Plan H2 are 338,000 (or 68%) and 6,200 or 2%).

-- In 1984-85, Plan H1 would result in 115,000 (or 22%) LAUSD pupils enrolled in Desegregated schools inside and outside of the District. Of these 4,600 (or 4%) would attend schools in neighboring districts. The corresponding figures for Plan H2 are 124,000 or 23%) and 4,600 (or 4%).

-- In 1984-85, Plan H1 would result in 417,000 (or 78%) of LAUSD pupils enrolled in Segregated schools inside and outside of the District. Of these, 11,400 (or 3%) would attend schools in neighboring districts. The corresponding figures for Plan H2 are 405,000 (or 77%) and 11,400 (or 3%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 160,000 (or 32%), which would be accomplished by Plan H2 in the first year of the projection. Of these, 2,800 (or 2%) would be enrolled outside the District. An additional 6,200 (or 2%) of LAUSD pupils would be transported outside the District to schools which, although Segregated, would be segregated in the opposite direction from their home schools (i.e., the predominant racial/ethnic group -- which would be White in all cases -- would not be the one to which they belonged.) Both the total number of pupils sent out of the District and the total sent out to Desegregated schools are projected to grow over the period, so that the highest is reached in the last year projected. Yet, neither Plan, even incorporating the pupils in Desegregated schools outside the District, would yield more than 124,000 desegregated LAUSD pupils in 1984-85 (or 22% of all pupils). This pattern of pupil desegregation would be the same as the pattern effected in the desegregation of LAUSD schools.

The model suggests that the immediate effect of introtion of either Plan, as compared to actual conditions in 1979-80, would generate a substantial increase in the aggregate number of pupils in Desegregated schools. Plan H1 would result in 20,000 (or 17%) more pupils in such institutions than are currently in them, while Plan H2 would yield 42,000 (or 36%) more than the current level. Both Plans would effectuate much more desegregation of pupils than would have occurred in the absence of any plan. Plan H1 is forecast to put 75,000 more pupils in this situation in 1980-81 and 61,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan H2 are 97,000 in 1980-81 and 70,000 in 1984-85.

Looking across the full projection period, the two Plans again show the slightly slower converging phenomenon already described with regard to schools. By 1984-85, the difference between the number of pupils in Desegregated schools in one Plan as against the other is only 7,000. The model's suggestion is that 15 minutes' difference in travel ceiling becomes of relatively little significance by the end of the period, compared with the first two years.

Differential Effects on Grade Levels

Charts 115, 115A, 116, and 117 present the elementary, junior high school, and high school effects of the two Plans, by racial/ethnic groups in LAUSD schools only. In brief, they show that:

Among elementary school pupils in Desegregated schools, sixth graders would make up the highest proportion (15-16%) in both Plans and in all years, while first graders would comprise the least.

-- All junior high school pupils would make up 32-35% of the total in both Plans and in all years.

-- Among senior high school pupils, tenth graders would be the largest group (36-38%) in both Plans, while twelfth graders would be the smallest.

-- Between 71% and 79% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 60% to 71%, and for senior high school enrollees 68% to 76%.

The simulation indicates that the addition of an area-wide feature of the type expressed in these variations would have virtually no effect on the grade distribution of pupils in Desegregated LAUSD schools. The distribution shown above is almost identical to what would result from Plans E1 and E2 alone. This follows from the fact that the effect of the area-wide component turns out always to be transportation of Minority LAUSD pupils, the great bulk of whom would come from RIMS that would not be Desegregated either before or after the transportation of some of their enrollees outside the District. Thus, there is no discernible effect upon the grade structure of desegregation within the LAUSD.

Racial/Ethnic Mix of Schools

Charts 118, 119, and 120 present the racial/ethnic mix of respectively, elementary, junior high, and senior high schools in the LAUSD under two Plans. This provides a more sensitive measure of the degree of segregation/desegregation than the simple dichotomy presented earlier. In brief, these Charts indicate that:

- -- The number of LAUSD elementary schools in the two bands closest to "Desegregated" (20-40% and 60-80% Combined Minority) created by the two Plans in 1980-81 ranges from 54 (or 11% of all elementary schools) to 75 (or 16%). By 1984-85, this range closes to 8%.
- -- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 231 or 49%) of all elementary schools to 249 (or 53%). By 1984-85, this range changes to 62% to 66%.
- -- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 6 (or 6%) of all junior high schools) to 15 (or 16%). By 1984-85, this range closes to 67%.
- -- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 50 (or 53% of all junior high schools) to 52 (or 54%). By 1984-85, this range changes to 66-67%.
- -- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 18 (or 18% of all senior high schools) to 20 (or 20%). By 1984-85, this range closes to 18%.
- -- The number of senior high schools in the bands closest to "Segregated" in 1980-81 ranges from 57 (or 58%) of all senior high schools) to 58 (or 59%). By 1984-85, this range changes to 62-63%.

-- The senior high schools begin the period most heavily segregated in both Plans, but give way to the junior high schools about midway through the five years.

Overall, the area-wide element in these two Plans produces a few minor perturbations in the racial/ethnic school pattern that would be established by the intra-District element, but the differences are much less evident than the similarities. The most apparent is a decrease of 4-5% in the number of junior high schools in the "near-Desegregated" category. This reflects the effects of flight upon possible candidates for voluntary programs who would push a few schools over the "near-Desegregated" line if the additional flight generated by the area-wide element were not introduced.

Pairs/Clusters/Midsites

The complexities inherent in projecting the interplay of pupil flight and the announcement and partial activation of Pairs/Clusters/Midsites are discussed in the corresponding analysis of variations C1 and C2 (page 113). It is assumed here that the reader has read that discussion and, therefore, understands the terms used in this Section.

Chart 121 and 122 list the originally announced Pairs/Clusters/Midsites formed by the model under the restrictions of Plans H1 and H2, distinguishes those that are in fact activated, and separates them by how long each set lasts in the face of demographic pressures. (It will be recalled that matchings are made twice in the course of the five year period, once before the 1980-81 school year and again before the 1983-84 year, and that all Clusters contain three schools.) In brief, the Charts show that:

-- Plan H1 would result in an announced total of 68 Pairs, eight Clusters, and four Midsites (of which 33 Pairs, seven Clusters, and four Midsites would be activated) in 1980-81, changing to 66 announced Pairs, no Clusters, and nine Midsites (of which 18 Pairs and nine Midsites would be activated) by 1984-85.

- Under Plan H1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 68 Pairs, eight Clusters, and four Midsites would be announced in 1980, of which two Pairs would last through 1985. Sixty-four new Pairs, no new Clusters, and nine new Midsites would be announced in 1983.
- Plan H2 would result in an announced total of 120 Pairs, seven Clusters, and 14 Midsites (of which 72 Pairs, seven Clusters, and 14 Midsites would be activated) in 1980-81, changing to 76 announced Pairs, no Clusters, and no Midsites (of which 70 Pairs would be activated) by 1984-85.
- Under Plan H2, no current Pairs, Clusters, or Midsites would endure in future years. All 120 Pairs, three Clusters, and 10 Midsites would be announced in 1980, of which none would last through 1985. Seventy-six new Pairs, no Clusters, and no Midsites would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by either Plan. Of the new matches made in 1980, only two Pairs would emerge from the 1983 reassignment under Plan H1, and no grouping would survive under Plan H2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, very few -- or none -- of the resulting matches are any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of

Desegregated schools, nearly every eligible school must be reassigned to a different grouping. Also, the new matches become less and less efficacious over time.

The addition of the area-wide component in these Plans would make no difference in the school groupings formed in Plan H1, or in Plan H2 in the initial assignment period (1980-83). But substantial differences would appear in the latter Plan in the 1983-85 interval. These differences are masked by the aggregate numbers of groupings. Plans E1 and H1 would form about the same number of Pairs (74-76), but 29 that appear in each Plan would not appear in the other. The area-wide component does not make large changes in the number of groups, as compared with the underlying intra-District Plan taken alone. But in the second assignment round it would change a good number of the announced destinations of the pupils to be transported in Plan H2.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) are quite noticeable in both Plans at several points during the projection period. In Plan H1, they invalidate 34 groupings (or 43% of all groupings) in 1980-83, and six (or 8%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan H1 would have 11 groupings (nine Pairs, one Cluster, and one Midsite -- or 25% of the activated groups) partially invalidated in 1980-83, and nine (all Pairs -- 33% of all activated groups) in that status during 1983-85. Plan H2 would have 26 groupings (16 Pairs, five Clusters, and five Midsites -- 28% of all active groups) partially out of service during the first interval, and 11 (all Pairs -- 16% of all active groups) partially invalidated in 1983-85.

Both Plans would encounter less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 34-48 (43-64% of all active) groupings created under either Plan would not be transporting pupils in at least one year. In the second interval 9-11 (or 16-33%) of all activated groups in each Plan would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would decline as the number of activated groups declined. Nevertheless, it is clear that the flight/demography combination would be very restrictive of the operation of mandatory linkages under the rules that govern this variation, particularly Plan H1. In the 1980-83 interval, 45 of 80 groupings (56%) announced under this Plan would be fully or partially invalidated by these factors, and even more (59, or 79%) would be in this category in 1984-85. Plan H2 would have 74 groupings (52%) fully or partially dormant in the first period, but only 18 (or 24%) during the second.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be, as noted above, a complete change in the groupings of schools that are employed this year. Under Plan H1 there would also be a large decrease in the number of each kind of grouping now in actual use. Under Plan H2 the total number of announced Pairs/Clusters/Midsites in 1980-81 would be more than double the number actually in effect in 1979-80, but the number activated would be about the same. The principal perceived difference would probably be the confusion caused by a large number of announced groupings in the spring, which then turned into a much smaller number of activated groupings in the fall.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/Midsiting of the 15-minute travel time allowance that divides them. The extra time results in nearly twice as many groupings in Plan H2 as in Plan H1. And they are mostly new groupings -- 13 of the Pairs announced in 1980 and 23 of the ones announced in 1983 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, although there would be more overlap here than between most variations, the destinations of pupils involved in mandatory transport would be largely different, depending on which Plan were chosen.

Magnet Schools

The interplay between Magnet demand and demographic forces creates a different Magnet list for each Plan for each year of the period. A simplified chart presentation of Magnet effects is not possible. In brief, the projections show the following:

-- Plan H1 would result in a total of 60 Magnets in 1980-81, of which 17 would be new and 43 would be from the current list. Of the current ones that would be preserved, 43 (or 72% of all Magnets) would be Segregated by the definition used herein. Plan H2 would generate 63 total Magnets in that year, 20 new and 43 old, of which 43 (or 68% of all Magnets) would be Segregated.

-- In 1984-85, Plan H1 would yield a total of 58 Magnets, of which 43 would be Segregated. The corresponding numbers for Plan H2 would be 57 and 43 (or 75% of all Magnets).

-- Under Plan H1 43 current Magnets would operate through the entire projection period, while 13 of those first opened in 1980-81 would survive the full five years. Under Plan H2 42 current Magnets would last the full period, and 14 of the 1980-81 crop would so endure.

-- The number of pupils attending Magnets in 1980-81 under Plan H1 would be 12,000 (or 2% of all pupils). These pupils would be 25% Black, 50% Hispanic, 8% Other Minorities, and 21% Whites. Under Plan H1, the total number of pupils would be 13,000 (or 3% of all pupils), and the racial/ethnic breakdown would be 25% Black, 45% Hispanic, 8% Other Minorities, and 22% White.

-- By 1984-85 the number of pupils attending Magnets under Plan H1 would fall to 11,000 (or 2% of all pupils). They would then be 20% Black, 53% Hispanic, 8% Other Minorities, and 18% White. Under Plan H2 the total number of pupils in 1984-85 would also be 11,000 (or 2% of all pupils), of whom 20% would be Black, 53% Hispanic, 9% Other Minorities, and 19% White.

Overall, the model projects that the effect of the area-wide component of these plans would be slightly to increase Magnet enrollment, compared to what Plans E1 and E2 would yield alone. The difference would be one extra Magnet and 500-1,000 pupils or so at the beginning and the end of the projection period. But the basic outline of the Magnet program would be the same -- dominated by 43 Segregated units carried over from the 1979-80 group, containing a rising share of Hispanic pupils, but never involving more than 2% of the pupil population.

The immediate effect of the installation of either Plan would be an increase in the number of Magnets (from 55 to 60-63) and rough stability in the number of pupils enrolled in them. But there would be a dramatic change in the racial/ethnic balance of these pupils. Combined Minority participation would rise from the current 56% of all Magnet enrollees to 78-79% to 1980-81, while White enrollment dropped correspondingly.

The two Plans would start a bit differently, but end in much the same place. Plan H2 would create the highest total of Magnets to be found in these simulations (63), and, because the model insures that new Magnets can only be formed if they are Desegregated, this insures that the 1980-81 total under this Plan represents the least Segregated Magnet program (68% Segregated) forecast. Plan H1 begins much more conventionally and slips gradually into the Magnet number and population range (11,000) in which Plan H2 also eventually finds itself in 1984-85.

Pupils Transported

Chart 123 shows the total number of pupils who would be transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

-- In 1980-81 Plan H1 would result in transportation of 51,000 (or 10%) of all LAUSD pupils to schools inside and outside of the District. Of these, 11,000 (or 22% of all pupils transported) would be sent to neighboring districts. Thirty-three percent of these outbound pupils would be sent to Desegregated schools.

-- In 1980-81 Plan H2 would result in transportation of 56,000 (or 11%) of LAUSD pupils to schools inside and outside of the District. Of these, 9,000 (or 16%) would be transported to neighboring districts. Thirty-one percent of these outbound pupils would be sent to Desegregated schools.

-- By 1984-85, Plan H1 would generate transportation of 52,000 (or 10%) of all LAUSD pupils to schools inside and outside of the District. Of these, 16,000 (or 31%) would be transported to neighboring districts. Twenty-nine percent of these outbound pupils would be sent to Desegregated schools.

-- By 1984-85, Plan H2 would yield transportation of 52,000 (or 10%) of all LAUSD pupils to schools inside and outside of the District. Of these, 16,000 (or 3%) would be transported to neighboring districts. Twenty-nine percent of these outbound pupils would be sent to Desegregated schools.

-- The burden of transportation would fall predominantly on Minority pupils under both Plans. In 1980-81, 76-80% of all pupils transported would be Minority, with Blacks making up 28-37%, Hispanics 41% and Other Minorities 5-6%. in 1984-85, 80-81% of all pupils transported would be Minority, with Blacks comprising 26-27%, Hispanics 47-48%, and Other Minorities 7%.

-- Of all pupils in the system in 1980-81, 12-15,000 (or 10-12%) of Blacks would be transported to LAUSD schools, and 3-4,000 (or 3%) would be transported to schools in neighboring districts. The corresponding figures for Hispanics are 14-18,000 (or 6-8%) and 5-7,000 (or 2-3%), for Other Minorities 2-4,000 (or 4-10%) and 1,000 (or 1%); and for Whites 10,000 (or 10-11%) and 0 (or 0%).

-- Of all pupils in the system in 1984-85, 9,000 (or 2% of) Blacks would be transported to LAUSD schools, and 5,000 (or 1%) would be transported to schools in neighboring districts. The corresponding figures for Hispanics are 17-19,000 (or 6-7%) and 6-8,000 (or 2-3%); for Other Minorities 2-3,000 (or 4-6%) and 1,000 (or 2%); and for Whites 10,000 (or 12-13%) and 0 (or 0%).

Overall, the projections show the substantial increase in pupils transported that would be caused by the area-wide element in these Plans. Without this component, Plans E1 and E2 showed a noticeable drop in this total. Plans H1 and H2 would both end the projection period at 52,000, or 16-17,000 more pupils than would be conveyed in Plans E1 and E2. This would represent a slight increase over the first year total for Plan H1, but a 7% drop from the first-year total for Plan H2. Both Plans would add to the total being transported outside the District as demography forced the deactivation of mandatory groupings and pupils in additional grades become eligible for assignment to surrounding districts. In Plan H1 this offset would be just about mutually cancelling, although a slight edge to out-of-District transportation would result in slow accretion in total pupils transported. Plan H2 would start out transportin 7,000 more pupils inside the District and 2,000 fewer outside. However, as this Plan's intra-District transportation became less productive of Desegregated schools, extra-District transportation would climb to the Plan H1 level. By the end of the projection period, both Plans would be transporting 16,000 pupils to suburba schools, 71% of whom would be travelling to attend schools segregated in the opposite direction from their own.

The model projects that all outbound pupil traffic from the District will be composed of Minority pupils. The sending schools are listed at the end of the Chart listing Pairs/Clusters/Midsites.

The immediate effect of adopting either Plan H1 or Plan H2, compared to actual conditions in 1979-80, would be greatly to increase the number of pupils transported, and to make equally large changes in their racial/ethnic balance. The number transported would rise from 42,000 (or 8% of all pupils) to 51-56,000 (or 10-11%) in 1980-81. The number mandatorily transported would show an even larger rise, from 16,000 to 24,000. (See Chart 124). The number of Combined Minority pupils transported would increase by 10,000, while their percentage share would rise from 77% to 84 under Plan H1, and remain at 77% under Plan H2. Put another way, the difference between the two Plans in this first year of the projection period would be the fact that H2 would result in transportation of 5,000 more White pupils inside the District.

The two Plans would follow opposite paths to their common 1984-85 destination. Plan H1, because of its intra-District aspects, would start at 51,000 pupils and move up very gradually. Plan H2 would start at 56,000 and move downward somewhat more rapidly. In 1984-85, both would be at 52,000, of which 36,000 would be transported within the LAUSD.

The total of pupils voluntarily transported breaks down into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

-- Plan H1 would result in transportation of 12,000 pupils (or 2% of all pupils) to Magnets in 1980-81, falling to 11,000 (or 2%) in 1984-85. Under Plan H2 the 1980-81 figure would be 13,000 (or 2% of all pupils) and the 1984-85 estimate 11,000 (or 2%).

-- Under Plan H1 the 1980-81 total of pupils transported to Magnets would include 3,000 (or 25%) Blacks, 6,000 (or 4%) Hispanics, 1,000 (or 8%) Other Minorities, and 3,000 (or 21%) Whites. Plan H2 would result in 3,000 (or 25%) Black pupils being transported, 6,000 (or 45%) Hispanics, 1,000 (or 8%) Other Minorities, and 3,000 (or 22%) Whites.

-- Under Plan H1 the 1984-85 total of pupils transported to Magnets would include 2,000 (or 20%) Blacks, 6,000 (or 53%) Hispanics, 1,000 (or 8%) Other Minorities, and 2,000 (or 19%) Whites. Plan H2 would be identical after rounding.

Overall, under either Plan the area-wide element would decrease the Magnet attendees' share of total pupil transportation. But the number of Magnet pupils transported would be a bit higher under Plans H1 and H2 than under E1 and E2. The racial/ethnic mix of these pupils would show a modest rise in the Hispanic component, a fall in the Black and White shares, and relative stability for Other Minorities.

The immediate effect of installation of either Plan, would be a large increase in the number of pupils transported to Magnets, despite the much smaller increase in the number of Magnet enrollees. The current total of Magnet pupils transported (7,000) would rise to 12-13,000. The District has no detailed data on the racial/ethnic characteristics of pupils currently transported to Magnets, so comparisons must refer to Whites and Combined Minorities only. At present the latter constitute 56% of the total; under these Plans this share would grow to 79-80%.

The two Plans would be nearly identical in their effects on Magnet transportation in all years after the first.

Below is summarized the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools on the West Side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites or Other

Minorities; thus, all pupils projected to be transported in this program are Black/Hispanic pupils.

In brief, the projections suggest that:

- Under Plan H1 the number of PWT pupils in 1980-81 would be 15,000 (or 4% of all Black/Hispanic pupils). The corresponding figures for Plan H2 would be 10,000 (or 3%).
- Of the Plan H1 total in 1980-81, 11,000 (or 70%) of PWT pupils would be Black, and 4,000 (or 29%) would be Hispanic. The Plan H2 results would be 7,000 (or 73%) Blacks, and 3,000 (or 27%) Hispanics.
- In 1984-85 Plan H1 would place 8,000 pupils (or 2% of all Black/Hispanic pupils) in PWT, while Plan H2 would do the same.
- Of the Plan H1 total in 1984-85, 5,000 (or 64%) would be Black, and 3,000 (or 36%) would be Hispanic. The corresponding figures for Plan H2 would be identical.

Overall, both Plans reflect the distinguishing aspects of the underlying intra-District variations: withdrawal of the exemption now offered successful PWT applicants from eligibility for mandatory assignment. The area-wide element is projected to make little or no difference to the pattern set by the intra-District component, which would be a drop in PWT participation from 10-15,000 pupils at the outset of the period to 8,000 at the end.

The immediate effect of installation of the Plan, as compared with actual conditions in 1979-80, would be a sharp drop in the number of pupils transported in this program. The current total is 18,000 (or 5% of all Black/Hispanic pupils). This would be lowered to 15,000 by Plan H1, and to 10,000 by Plan H2.

The difference between the two Plans would be considerable, but only in the early years of the period. Plan H2, in which a much larger number of initial mandatory linkages would pre-empt PWT participants and slots, would effect a 56% cut in the program in the first year, while Plan H1 would result in only an 11% reduction. As the mandatory linkages in H2 are winnowed down by demography and flight, however, the Plans become almost interchangeable in their aggregate effects, ending in 1985 with programs involving about half as many pupils as are now transported.

Average One-Way Travel Times

Charts 125 and 126 present the average one-way travel times experienced by all pupils transported under Plans H1 and H2 and pupils mandatorily transported. In brief, it shows that:

-- Plan H1 would result in 1980-81 in average travel times, inside and outside of the District, of 33 minutes for elementary school pupils, 42 minutes for junior high school pupils, and 49 minutes for high school pupils. The average travel time for all pupils sent out of the District would be 26 minutes. The corresponding figures for Plan H2 are 37 minutes, 40 minutes, and 50 minutes, with an average of 26 minutes for pupils sent out of the LAUSD.

-- The 1980-81 Plan H1 figures would break down to an average of 46 minutes for all Black pupils, 34 minutes for all Hispanics, 31 minutes for Other Minorities, and 28 minutes for Whites. The Plan H2 figures for the same year would break down to an average of 45 minutes of all Black pupils, 3[illegible] minutes for all Hispanics, 37 minutes for Other Minorities, and 37 minutes for Whites.

-- In 1984-85, Plan H1 would generate average travel times of 32 minutes for elementary schools, 36 minutes for junior high pupils, and 36 minutes for senior high pupils. For all pupils sent out of the District, the average would be 26 minutes. The corresponding figures for Plan H2 are 33 minutes, 39 minutes, and 36 minutes, and an average for those sent outside the District of 26 minutes.

-- In 1984-85 Plan H1 figures would break down to an average of 41 minutes for all Black pupils, 32 minutes for all Hispanics, 30 minutes for Other Minorities, and 28 minutes for Whites. The Plan H2 figures for the same year would break down into an average of 40 minutes for all Black pupils, 34 minutes for all Hispanics, 31 minutes for Other Minorities, and 31 minutes for Whites.

Overall, the two Plans would both yield shorter average travel times over the period, moving from an all-transported-pupil average of 37-39 minutes in 1980-81 to 34-35 minutes in 1984-85. This would reflect the growth in the number of shorter trips outside the District (and governed by the 30-minute travel ceiling) as extra-District transportation became a larger component of total transportation. The area-wide element in the Plans would have a noticeable effect on Minority pupil travel times, particularly on those of Blacks in the latter years of the period. However, this would not be accomplished so much by shortening current trips, but by adding large numbers of new, shorter trips to the current base.

Summary of Quantifiable Findings

	Plan H1	Plan H2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	-58,000 (or 10%)	-81,000 (or 14%)
Projected Total	521,000	498,000
1984-85		
Expected	597,000	597,000
Flight	-65,000 (or 12%)	-68,000 (or 13%)
Projected Total		
Desegregated Schools		
1980-81	194 (or 29%)	246 (or 37%)
1984-85	168 (or 25%)	185 (or 28%)
Segregated Schools		
1980-81		
RIWS	67	25
RIMS	400	393
Total	467 (or 71%)	418 (or 63%)
1984-85		
RIWS	20	15
RIMS	471	458
Total	491 (or 75%)	473 (or 72%)
Desegregated Pupils		
1980-81	138,000 (or 26%)	160,000 (or 32%)
1984-85	115,000 (or 22%)	124,000 (or 23%)

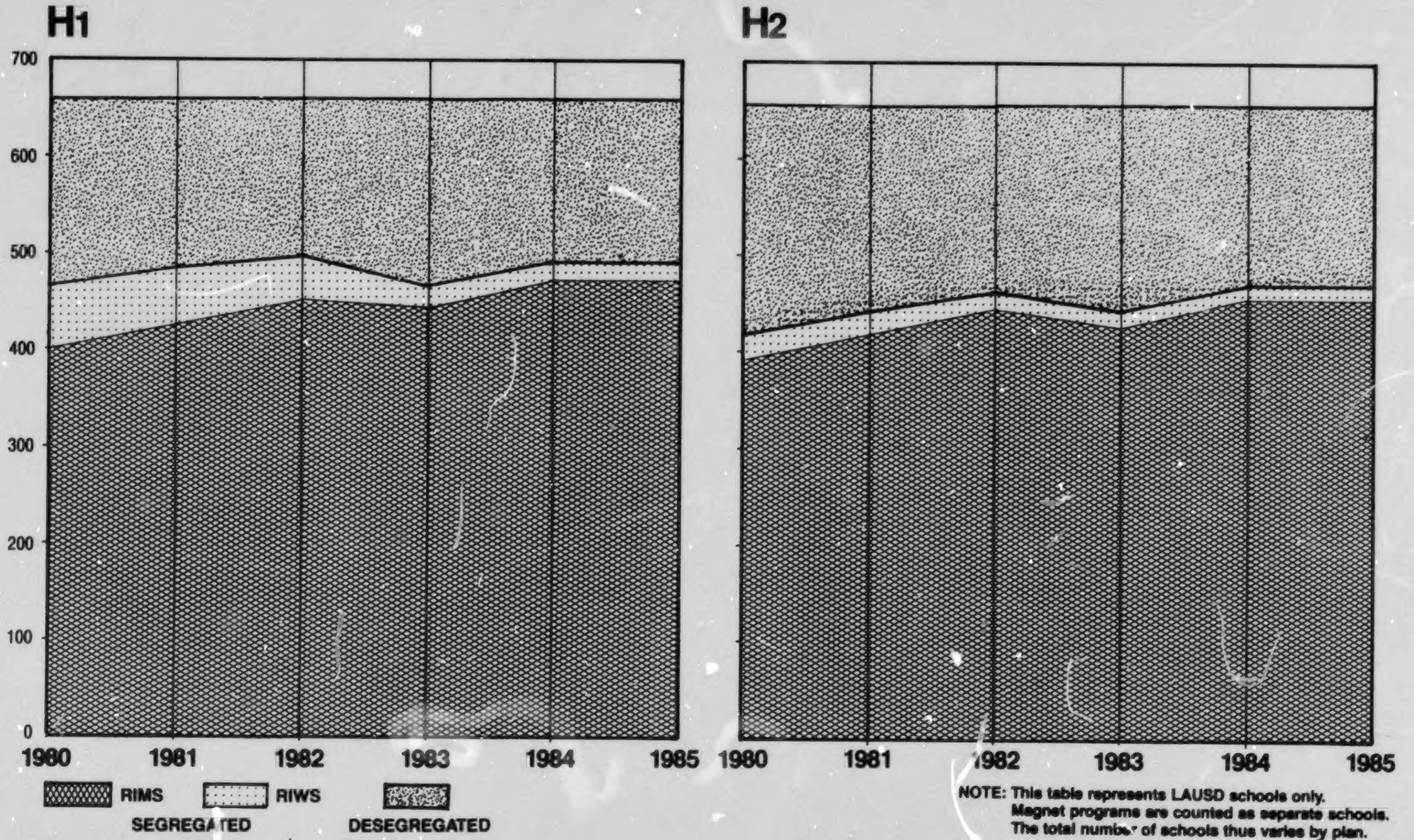
	Plan H1	Plan H2
Segregated Pupils		
1980-81	383,000 (or 74%)	338,000 (or 68%)
1984-85	417,000 (or 78%)	405,000 (or 77%)
Magnet Schools		
1930-81	60	63
1984-85	58	57
Magnet Pupils		
1980-81		
Desegregated	3,000 (or 25%)	4,000 (or 25%)
Segregated	9,000 (or 75%)	9,000 (or 75%)
Total	12,000	13,000
1984-85		
Desegregated	3,000 (or 25%)	3,000 (or 25%)
Segregated	9,000 (or 75%)	9,000 (or 75%)
Total	12,000	12,000
PWT Pupils		
1980-81		
Black	11,000 (or 71%)	7,000 (or 70%)
Hispanic	4,000 (or 29%)	3,000 (or 30%)
Total	15,000	10,000
1984-85		
Black	5,000 (or 64%)	5,000 (or 58%)
Hispanic	3,000 (or 36%)	3,000 (or 42%)
Total	8,000	8,000

	Plan H1	Plan H2
Total Pupils Transported		
1980-81		
Voluntary	27,000 (or 53%)	22,000 (or 39%)
Mandatory	24,000 (or 47%)	34,000 (or 61%)
Total	51,000	56,000
1984-85		
Voluntary	20,000 (or 38%)	19,000 (or 37%)
Mandatory	32,000 (or 62%)	33,000 (or 63%)
Total	52,000	52,000
Average Travel Times		
1980-81		
Overall	37	39
Black	46	45
Hispanic	34	36
Other Minority	31	37
White	28	37
1984-85		
Overall	34	35
Black	41	40
Hispanic	32	34
Other Minority	30	31
White	28	31

CHARTS FOR VARIATIONS H1 AND H2

CHART 113

AREA RESOURCE UTILIZATION PLANS H1 AND H2
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985

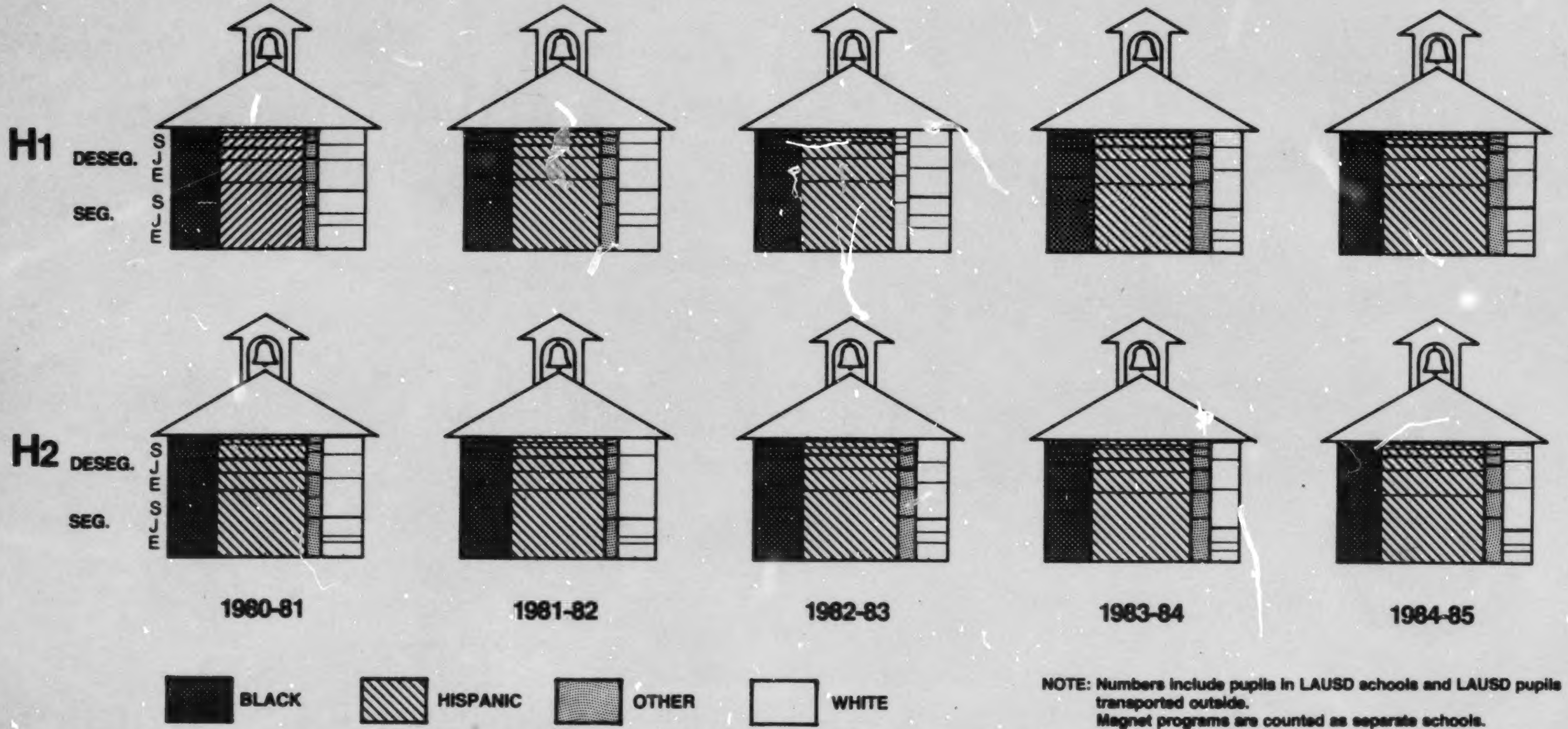


NOTE: This table represents LAUSD schools only.
Magnet programs are counted as separate schools.
The total number of schools thus varies by plan.

CHART 114

AREA RESOURCE UTILIZATION PLANS H1 AND H2

PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

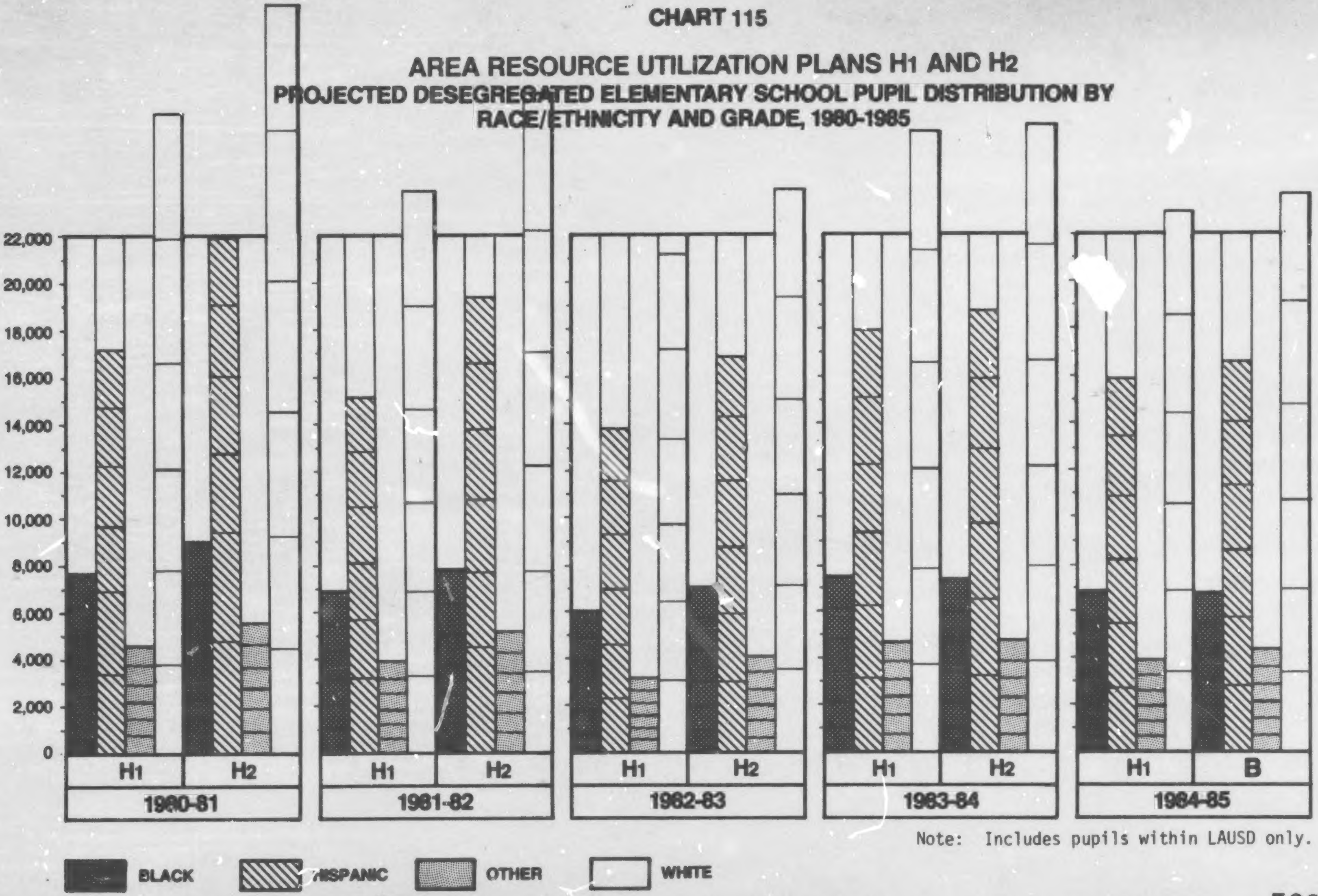


NOTE: Numbers include pupils in LAUSD schools and LAUSD pupils transported outside.
Magnet programs are counted as separate schools.

CHART 115

AREA RESOURCE UTILIZATION PLANS H_1 AND H_2

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

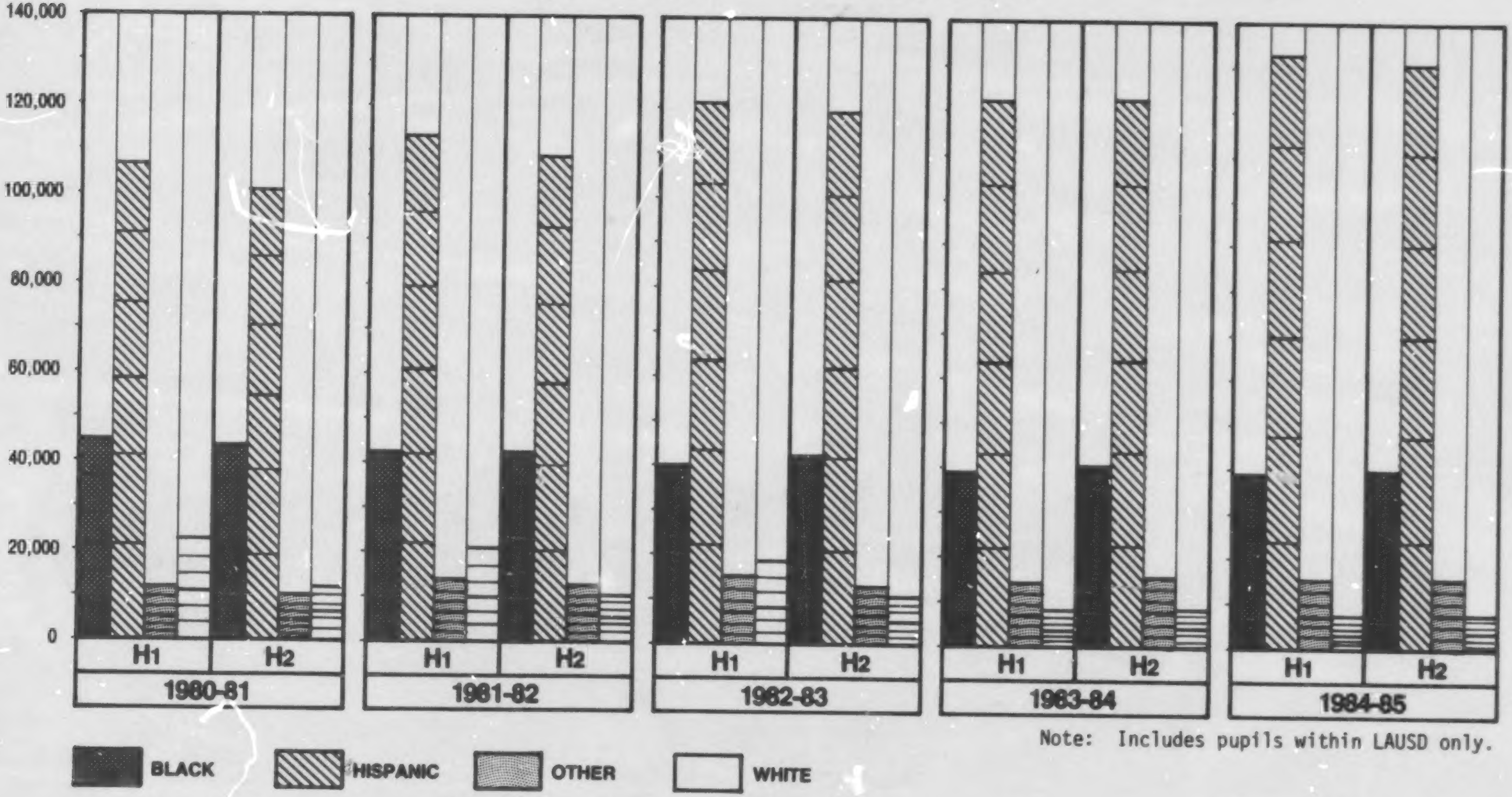


Note: Includes pupils within LAUSD only.

CHART 115

AREA RESOURCE UTILIZATION PLANS H_1 AND H_2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

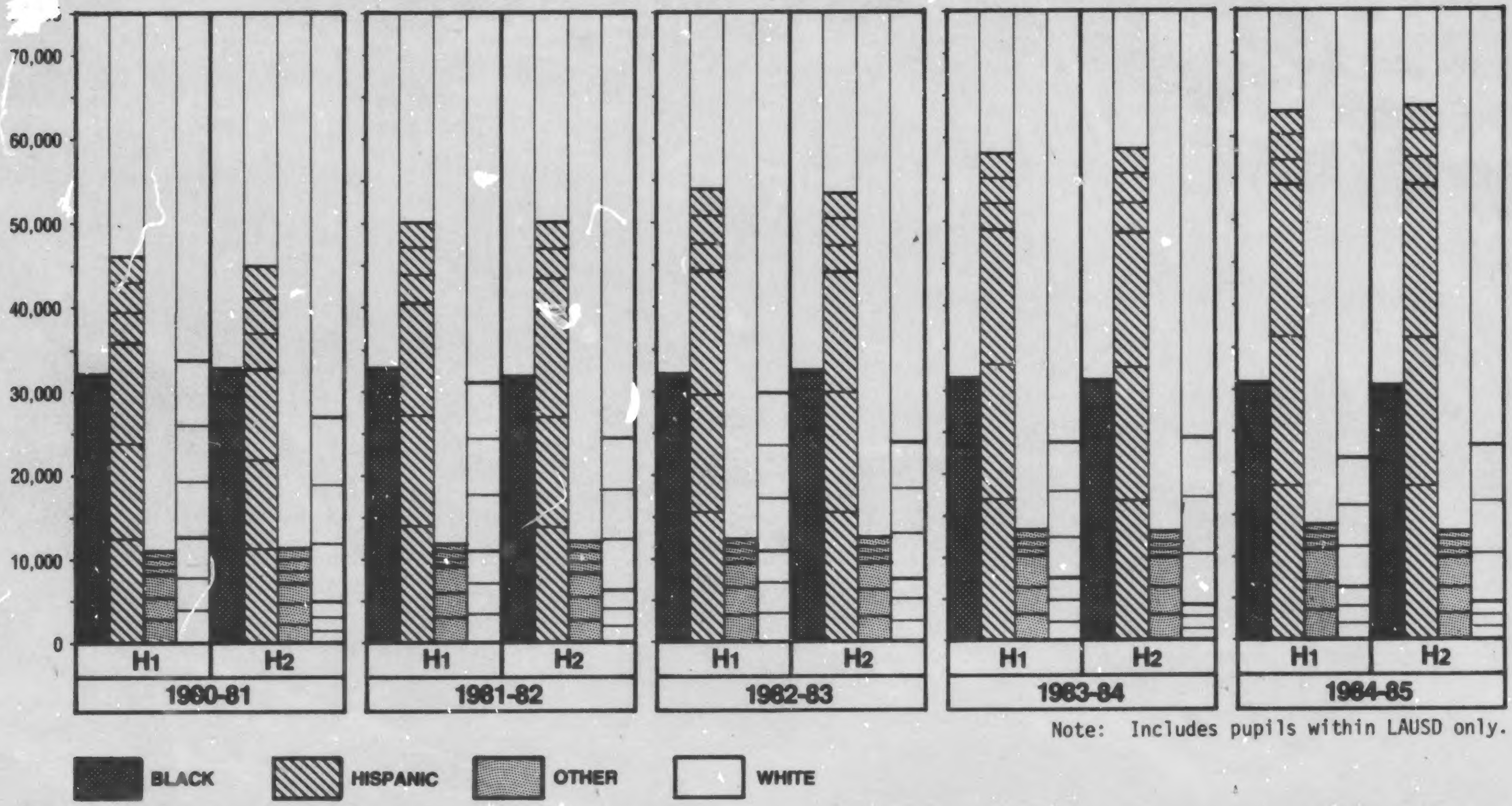


Note: Includes pupils within LAUSD only.

CHART 116

AREA RESOURCE UTILIZATION PLANS H1 AND H2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

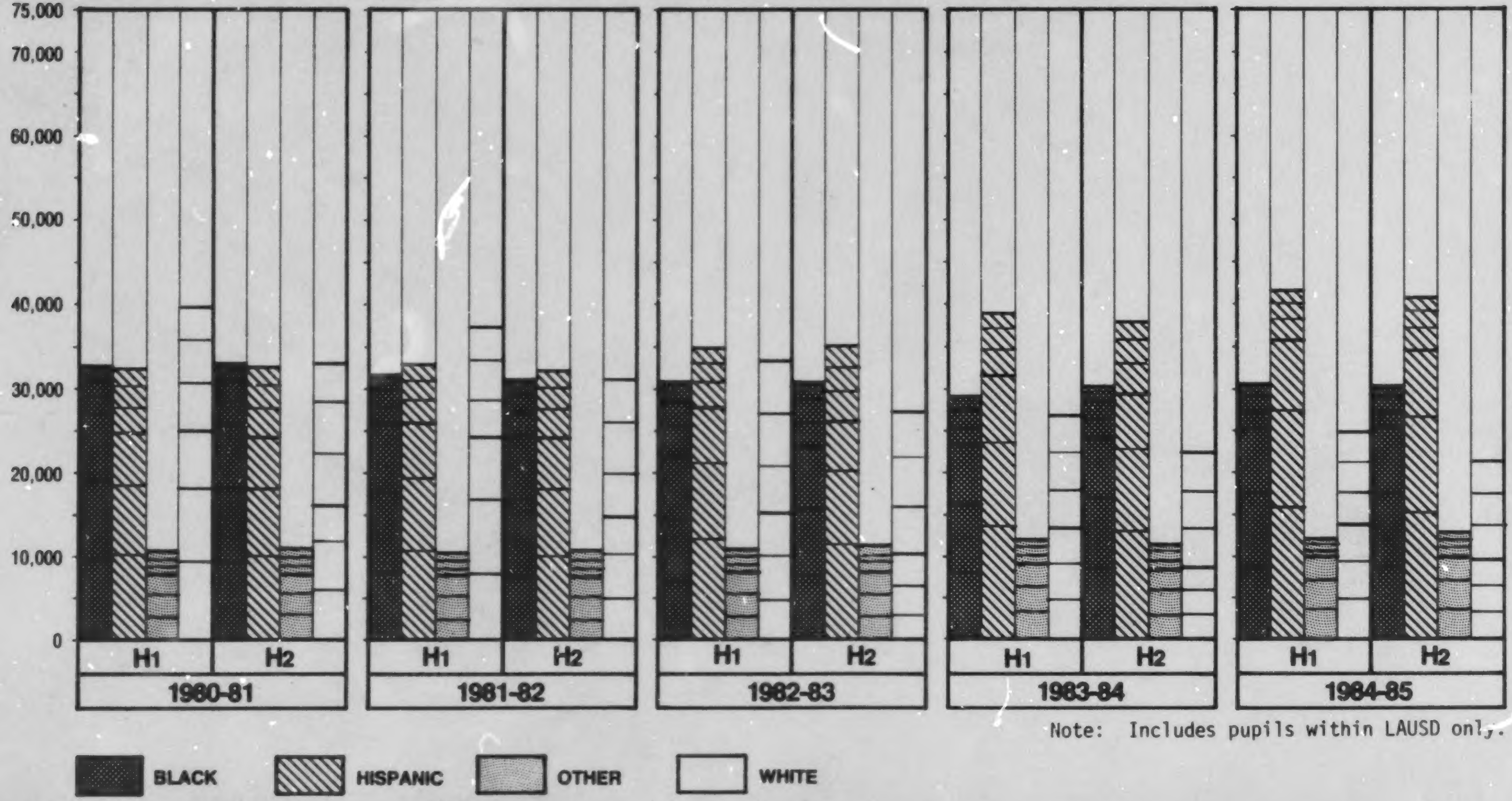


Note: Includes pupils within LAUSD only.

CHART 117

AREA RESOURCE UTILIZATION PLANS H1 AND H2

PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985



Note: Includes pupils within LAUSD only.

CHART 118

AREA RESOURCE UTILIZATION PLANS H_1 AND H_2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	H_1	H_2	H_1	H_2	H_1	H_2	H_1	H_2	H_1	H_2
1980-81	9	0	26	1	144	184	49	53	240	231
1981-82	7	0	22	1	130	167	45	49	262	252
1982-83	7	0	13	1	117	139	48	59	281	268
1983-84	1	0	3	3	146	157	33	34	283	272
1984-85	1	0	2	1	126	140	33	34	304	291

NOTE: Magnet programs are counted as separate schools.

CHART 119

AREA RESOURCE UTILIZATION PLANS H_1 AND H_2

PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

SCHOOL YEAR	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
	H_1	H_2	H_1	H_2	H_1	H_2	H_1	H_2	H_1	H_2
1980-81	0	0	5	0	30	39	10	6	50	52
1981-82	0	0	3	0	27	31	11	9	54	55
1982-83	0	0	3	0	25	27	10	11	57	57
1983-84	0	0	2	0	27	30	5	7	61	58
1984-85	0	0	1	0	24	26	6	6	64	62

NOTE: Magnet programs are counted as separate schools.

CHART 120

AREA RESOURCE UTILIZATION PLANS H_1 AND H_2

PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	H_1	H_2	H_1	H_2	H_1	H_2	H_1	H_2	H_1	H_2
1980-81	13	12	14	12	20	23	6	6	45	45
1981-82	13	12	14	10	18	23	6	6	47	47
1982-83	12	11	9	7	22	26	6	6	49	47
1983-84	10	10	6	4	22	27	10	9	50	48
1984-85	11	10	5	4	16	19	13	14	51	51

NOTE: Magnet programs are counted as separate schools.

CHART 121

AREA RESOURCE UTILIZATION PLAN H1
PAIRS, CLUSTERS AND MIDSITES

CONTINUOUS 1978-85

None

CONTINUOUS 1980-85

Pairs:

Apperson - Brainard
Frost JHS - Maclay JHS

1980-83 ONLY

Pairs:

Allesandro - Toluca Lake
*Ann - Cheremoya
*Bandini - 7th Street
*Bassett - Noble
*Beachy - Plummer
Beckford - Vaughn
*Bellagio - Virginia
Braddock - Pacific Palisades
*Brentwood Science - Broadway
*Broad Avenue - South Shores
Brockton - Kenter Canyon
Saturn - Warner
Cabrillo - Leland
*Camellia - Chase
*Canoga Park - Hart
Canyon - Richland
Caroldale - Crestwood
Carpenter - Santa Monica
Carthay Center - Rosewood
*Castle Heights - Queen Anne
Castlebay Lane - Victory
*Chapman - Osage
Charnock - Fairburn
Clifford - Wonderland
*Cohasset - Haddon
Colfax - Delevan
*Crescent Heights - Westwood
*Dahlia Heights - Yorkdale
Dayton - Rio Vista
Dixie Canyon - Ramona
*Dyer - Tulsa
*El Dorado - Herrick
*Eshelman - Normont
*Fernangeles - Gledhill
*15th Street - Taper
*59th Street - Kentwood
Filmore - Vintage
Fries - Lomita Fund
Glenwood - Mt. View
*Grant - Saticoy
Area 7 Alternative - Mt. Washington
*Kittridge - Van Nuys
Knollwood - Osceola
Lanai - Sterry
Lankershim - Monlux
*Loyola Village - Paseo Del Rey
Marquez - Westminster
*Mar Vista - Palms
Montague - Prairie
Nestle - Sylvan Park
Anchorage - Short
*Parthenia - Vena
Playa Del Rey - Westport Heights
*Point Fermin - 232nd Place
Riverside - Van Ness
Roscoe - Sunland
Roscomare - Shenandoah
Selma - Sherman Oaks
*3rd Street - Wilshire Crest

*Emerson JHS - Webster JHS
*Le Conte JHS - Reed JHS
Mt. Gleason JHS - Pacoima JHS
*Revere JHS - Mark Twain JHS
*Hamilton SHS - University SHS
*Hollywood SHS - No. Hollywood SHS
*Kennedy SHS - San Fernando SHS

Clusters:

Pacoima - Anatola - Balboa
Morningside - Andasol - Darby
Telfair - Gault - Van Gogh
San Fernando - Germain - Mayall
Sharp - Dearborn - Kester
O'Melveny - Granada - Lorne
Fenton - El Oro - Pinewood
*San Fernando JHS - Northridge JHS - Porter JHS

Midsites:

Coldwater Canyon - Alexandria - Lemay
Burbank - Emelita - Lockwood
Oxnard - Hesby - Rosemont
Millikan JHS - De Portola JHS - Virgil JHS

1983-85 ONLY

Pairs:

*Anatola - Parthenia
Andasol - Osceola
Arminta - Prairie
Balboa - Harding

Beachy - Germain
Beckford - Dyer
Bertrand - Kittridge
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calvert - Tulsa
Canfield - Warner
*Cantara - Fullbright
Canterbury - Topeka Drive
Canyon - Mar Vista
Carpenter - Gardena
Castlebay Lane - Hubbard
Collier - Van Nuys
Darby - Gridley
Dearborn - Herrick
*Devonshire - Rinaldi
Dixie Canyon - Los Feliz
El Dorado - Knollwood
El Oro - Stonehurst
Emelita - Vena
*Enadia - Highlander
Encino - Sylvan Park
*Erwin - Oxnard
Eshelman - Lomita Fund
Fair - Sunland
Filmore - Valley Alternative
Garden Grove - Pacoima
Glenwood - Pinewood
Hancock Park - Rosewood
Hart - Nevada
*Haskell - Superior
Hazeltine - Vanalden
Hesby - Valley View
Kenter Canyon - Marquez
Lanai - Richland
*Langdon - Melvin

Lankershim - Vintage
Laurel - Roscomare
Leland - South Shores
Lemay - Saticoy
Lemerick - Noble
Melrose - Wonderland
*Mt. View - Plainview
Napa - Sunny Brae
*Newcastle - Ranchito
Anchorage - Coeur D'Alene
*Oso - Plummer
Riverside - Selma
Sylmar - Van Gogh
Columbus JHS - Northridge JHS
De Portola JHS - Van Nuys JHS
*Fulton JHS - Sequoia JHS
*Henry JHS - Porter JHS
Lawrence JHS - San Fernando JHS
Mt. Gleason JHS - Sun Valley JHS
*Nobel JHS - Sepulveda JHS
*Birmingham SHS - Van Nuys SHS
Fancis Poly SHS - Verdugo Hills SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Hollywood SHS

Midsites:

Lorne - Capistrano - Sharp
Granada - Chatsworth - Morningside
Gledhill - Fenton - Winnetka
Kester - Grant - Serrania
Chandler - Nestle - Santa Monica
Bassett - Tarzana - Vaughn
Cohasset - Victory - Wilbur
Millikan JHS - Hughes JHS - Le Conte JHS
*Kennedy SHS - Chatsworth SHS - No. Hollywood SHS

* means grouping would never be activated during projection period.

AREA RESOURCE UTILIZATION PLAN H1
LIST OF LAUSD SENDING SCHOOLS

1980

Alta Loma
Ambler
Amestoy
Annalee
Annandale
Atwater
Avalon Gardens
Baldwin Hills
Barton Hill
Bonita
Broadacres
Buchanan
Carson
Catskill
Century Park
Cienega
Cimarron
City Terrace
Coliseum
Corona
Del Amo
Denker
Dolores
Dominguez
Dorris
Eastman
Elizabeth
Figueroa
Fishburn
Fletcher
Ford
4th Street
Gardena
Garvanza
Glassell Park
Glenfeliz
Grape
Gulf
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
La Salle
Leapwood
Liberty
Logan
Loma Vista
Manchester
Manhattan
Mayberry
Murchison
118th Street
186th Street
153rd Street
107th Street
135th Street
122nd Street
Park Avenue
Park Western
Purche
Ritter
Rockdale
Rowan
San Gabriel
Sierra Park
Sierra Vista
Stanford
State
Stoner
Towne
Tweedy
Van Deene
Victoria
Vine
West Athens
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Locke SHS
Los Angeles SHS
Marshall SHS
Washington SHS

1983

Allesandro
Ambler
Amestoy
Annalee
Atwater
Avalon Gardens
Bandini
Barton Hill
Beethoven
Bonita
Braddock
Broad Avenue
Broadacres
Broadway
Bryson
Cabrillo
Camellia
Caroldale
Carson
Carthay Center
Catskill
Century Park
Chapman
Charnock
Cimarron
City Terrace
Crescent Heights
Del Amo
Delevan
Denker
Dolores
Domiguez
Eastman
Elizabeth
Fernangeles
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Franklin
Fries
Gardena
Garvanza
Glassell Park
Grape
Gulf
Haddon
Harbor City
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
Leapwood
Liberty
Loma Vista
Lorena
Loyola Village
Manhattan
Murchison
98th Street
Normont
186th Street
156th Street
153rd Street
135th Street
122nd Street
Osage
Park Avenue
Park Western
Point Fermin
President
Purche
Rockdale
Roscoe
Rowan
San Gabriel
Sierra Park
Sierra Vista
Stanford
State
Taper
Towne
Tweedy
232nd Place
Meyler
Van Deene
Victoria
Vine
West Athens
White Point
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
Doson JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Hamilton SHS
Locke SHS
Marshall SHS
Washington SHS
Westchester SHS

CHART 122

AREA RESOURCE UTILIZATION PLAN H2
PAIRS, CLUSTERS AND MIDSITES

1978-1985 CONTINUOUS

None

1980-1985 CONTINUOUS

None

1980-1983 ONLY

Pairs:

Albion - Dixie Canyon
*Allesandro - Tulsa
*Ambler - Paseo Del Rey
Anatola - Brainard
*Ann - Chase
Annandale - Kester
Apperson - Sierra Vista
Atwater - Vintage
Balboa - Camellia
*Bandini - 7th Street
*Bassett - Dorris
*Beachy - Calahan
Beckford - Micheltorena
*Bellagio - 32nd Street
*Bertrand - Van Nuys
*Blythe - Lockwood
*Bonita - Westport Heights
Bradcock - Lanai
Brentwood Science - Broadway
*Broad Avenue - Point Fermin
*Brockton - Kenter Canyon
Buchanan - Riverside
Saturn - Nestle
*Bushnell - Cheremoya
Cabrillo - Leland
Chauenga - Wilbur
*Canoga Park - Hart
Canyon - Loyola Village
Capistrano - Noble
Caroldale - South Shores
Carpenter - Soto
Carthay Center - Rosewood
*Castle Heights - 42nd Street
Castlebay Lane - Ramona
*Chapman - Osage
*Charnock - Oakdale Avenue
Chatsworth - Montague
*Cimarron - Westwood
*Clifford - Cohasset
Colfax - Rockdale
Coliseum - Encino
Collier - Crescent Heights
Collins - Selma
Crestwood - 232nd Place
*Dahlia Heights - Tweedy
Darby - Filmore
Dayton - Prairie
Dearborn - Dyer
Delevan - Knollwood
Dolores - Fairburn
*El Dorado - Herrick
El Oro - Osceola
*Elysian - Rhoda
Emelita - Virginia
*Eshelman - Normont
Fenton - Nevada
Fernangeles - Topeka Drive
*15th Street - Taper
59th Street - Sherman Oaks
Fletcher - Toluca Lake
Fries - Lomita Fund
Fullbright - Sterry
Garvanza - Pinewood
Gault - Playa Del Rey
Germain - Vaughn
*Gledhill - Sylvan Park
Glen Alta - Sunland
Glenfeliz - Wonderland
Glenwood - Lorne
Grant - Serrania
Area 7 Alternative - Ritter
Hesby - Yorkdale
*Kentwood - 186th Street
*Kittridge - Van Ness
*Lankershim - Shirley
*Latona - Saticoy
Lemay - Shenandoah
Limerick - O'Melveny
Marquez - Queen Anne
*Mar Vista - Vernon
Mayall - Roscoe
Mayberry - Vanalden
Monlux - Mt. Washington
Mt. View - San Pascual
Multnomah - Rio Vista
Newcastle - Rosemont
Anchorage - Van Deene
Pacific Palisades - Short
Palms - Valley Alternative
*Parthenia - Vena
*Plummer - Toland Way
*Richland - Tarzana
Roscomare - Solano
Santa Monica - Sunny Brae
*3rd Street - Wilshire Crest
Topanga - Westminster
Van Gogh - Victory
Vine - Warner
Bancroft JHS - Frost JHS
Burbank JHS - Mt. Gleason JHS
*Carnegie JHS - Emerson JHS
Columbus JHS - San Fernando JHS
De Portola JHS - Marina Del Rey JHS
*Henry JHS - Le Conte JHS
*Irving JHS - Reed JHS

Lawrence JHS - Maclay JHS
*Mt. Vernon JHS - Revere JHS
*Nobel JHS - Pacoima JHS
Palms JHS - Sequoia JHS
*Porter JHS - Mark Twain JHS
*Sutter JHS - Webster JHS
*Birmingham SHS - Fairfax SHS
*Carson SHS - University SHS
Franklin SHS - Verdugo Hills SHS
Grant SHS - Lincoln SHS
*Hamilton SHS - Palisades SHS
*Hollywood SHS - No. Hollywood SHS
*Kennedy SHS - San Fernando SHS
*Marshall SHS - Monroe SHS

Clusters:

Pacoima - Calabash - Reseda
Telfair - Andasol - Hamlin
Alexandria - Garden Grove - Melvin
Haddon - Devonshire - Oso
Morningside - Granada - Winnetka
San Fernando - Superior - Woodlake
Sharp - Calvert - Woodland Hills

Midsites:

Burbank - Cortez - Platt Ranch
Valerio - Enadia - Hobart
Hazeltine - 1st Street - Highlander
Chandler - Haynes - Union
Langdon - Hoover - Justice
Erwin - Lockhurst - Utah
Lassen - Logan - Pomelo
Liggett - Loreto - Welby
Millikan JHS - Adams JHS - Hughes JHS
Mulholland JHS - Hale JHS - Pastuer JHS
Sepulveda JHS - King JHS - Parkman JHS
Fulton JHS - Northridge JHS - Virgil JHS
Van Nuys SHS - Dorsey SHS - Reseda SHS
Francis Poly SHS - Granada Hills SHS - Los Angeles SHS

1983-85 ONLY

Pairs:

Anatola - Arminta
Andasol - Haskell
Apperson - Rockdale
Balboa - Gridley
Beachy - Germain
Beckford - Sylmar
Beethoven - Marquez
Brainard - Sunland
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calabash - Valley View
Calahan - Capistrano
Calvert - Rinaldi
Canfield - Warner
*Cantara - Fullbright
Canterbury - Topeka Drive
Canyon - Mar Vista
Carpenter - Gardner
Castlebay Lane - Dyer
Chanock - Lanai
Chatsworth - Vaughn
Colver - Vanalden
Collier - Fair
Collins - Hamlin
Darby - Harding
Dayton - Wilbur
Dearborn - Tulsa
*Dixie Canyon - Selma
El Dorado - Knollwood
El Oro - Herrick
Emelita - Van Nuys
*Enadia - Highlander
Encino - Richland
*Erwin - Roscoe
Eshelman - Lomita Fund
Filmore - Vintage
Garden Grove - Parthenia
Glenwood - Pinewood
Grand View - Nestle
Hancock Park - Rosewood
Hart - Nevada
Haynes - Justice
Hazeltine - Valley Alternative
Hesby - Kenter Canyon
Kittridge - Platt Ranch
Langdon - Welby
Lankershim - Riverside
Laurel - Roscomare
Leland - South Shores
Lemay - Saticoy
Limerick - Vena
Melrose - Wonderland
Melvin - Stonehurst
*Mt. View - Plainview
Napa - Sunny Brae
Anchorage - Playa Del Rey
Osceola - Van Gogh
Oxnard - Serrania
Plummer - Prairie
Pomelo - Reseda
Ranchito - Woodland Hills
Coeur D'Alene - Topanga
De Portola JHS - Van Nuys JHS
Frost JHS - Porter JHS
Hale JHS - Sutter JHS
Lawrence JHS - Sepulveda JHS
Mt. Gleason JHS - Sun Valley JHS
Northridge JHS - Parkman JHS
*Canoga Park SHS - Monroe SHS
Chatsworth SHS - Francis Poly SHS
El Camino Real SHS - Palisades SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Van Nuys SHS
Hamilton SHS - Reseda SHS
Hollywood SHS - Taft SHS
No. Hollywood SHS - Verdugo Hills SHS

* means grouping would never be activated during projection period.

AREA RESOURCE UTILIZATION PLAN H2
LIST OF LAUSD SENDING SCHOOLS

1980

Alta Loma
Amestoy
Annalee
Avalon Gardens
Baldwin Hills
Barton Hill
Broadacres
Carson
Castelar
Catskill
Century Park
Cienega
City Terrace
Corona
Del Amo
Denker
Dominguez
Eastman
Elizabeth
Figueroa
Fishburn
Ford
4th Street
Gardena
Glassell Park
Grape
Gulf
Harrison
Hawaiian
Heliotrope
Hillcrest
Hillside
Humphreys
Hyde Park
Lane
Leapwood
Liberty
Loma Vista
Manchester
Manhattan
Monte Vista
Murchison
118th Street
153rd Street
109th Street
107th Street
135th Street
122nd Street
Park Avenue
Park Western
Purche
Rowan
San Gabriel
Sierra Park
Stanford
State
Stoner
Towne
Victoria
Weigand
West Athens
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Carver JHS
Clay JHS
Curtiss JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Markham JHS
Nightingale JHS
Nimitz JHA
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Crenshaw SHS
Gardena SHS
Garfiled SHS
Locke SHS
Manual Arts SHS
Washington SHS

1983

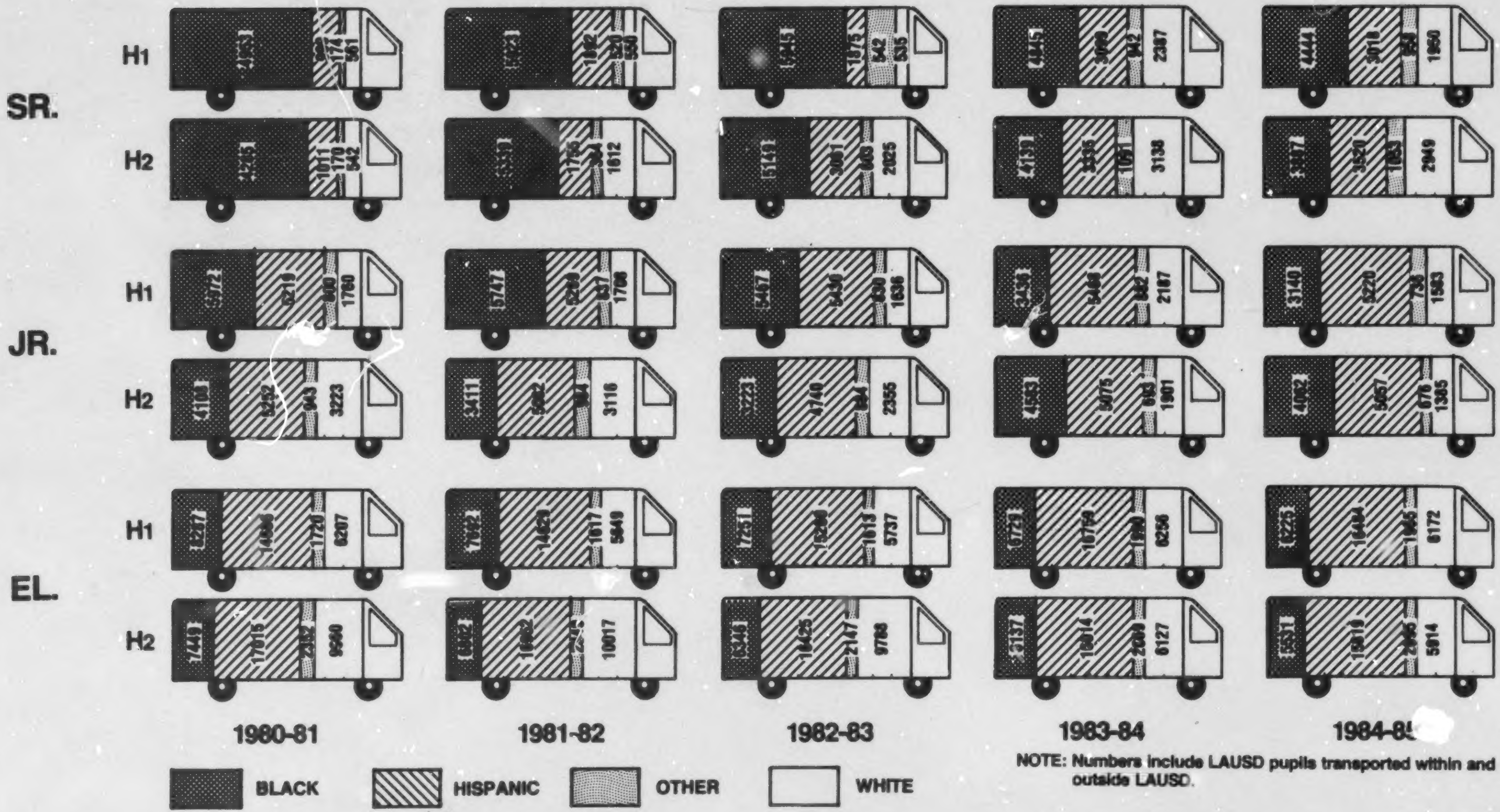
Allesandro
Ambler
Amestoy
Annalee
Atwater
Avalon Gardens
Bandini
Barton Hill
Bonita
Braddock
Broad Avenue

Broadacres
Broadway
Bryson
Cabrillo
Camellia
Caroldale
Carson
Carthay Center
Catskill
Century Park
Chapman
Cimarron
City Terrace
Crescent Heights
Del Amo
Delevan
Denker
Dolores
Dominguez
Eastman
Elizabeth
Fernangeles
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Franklin
Fries
Gardena
Garvanza
Glassell Park
Grant
Grape
Gulf
Haddon
Harbor City
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
Leapwood
Liberty
Loma Vista
Lorena
Loyola Village
Manhattan
Murchison
98th Street
Normont
186th Street
156th Street
153rd Street
135th Street
122nd Street
Osage
Palms
Park Avenue
Park Western
Point Fermin
President
Purche
Rowan
San Gabriel
San Pascual
Sierra Park
Sierra Vista
Stanford
State
Taper
Towne
Tweedy
232nd Place
Meyler
Van Deene
Victoria
Victory
Walgrove
West Athens
White Point
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
Dodson JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Locke SHS
Marshall SHS
Venice SHS
Washington SHS
Westchester SHS

CHART 123

AREA RESOURCE UTILIZATION PLANS H1 AND H2

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

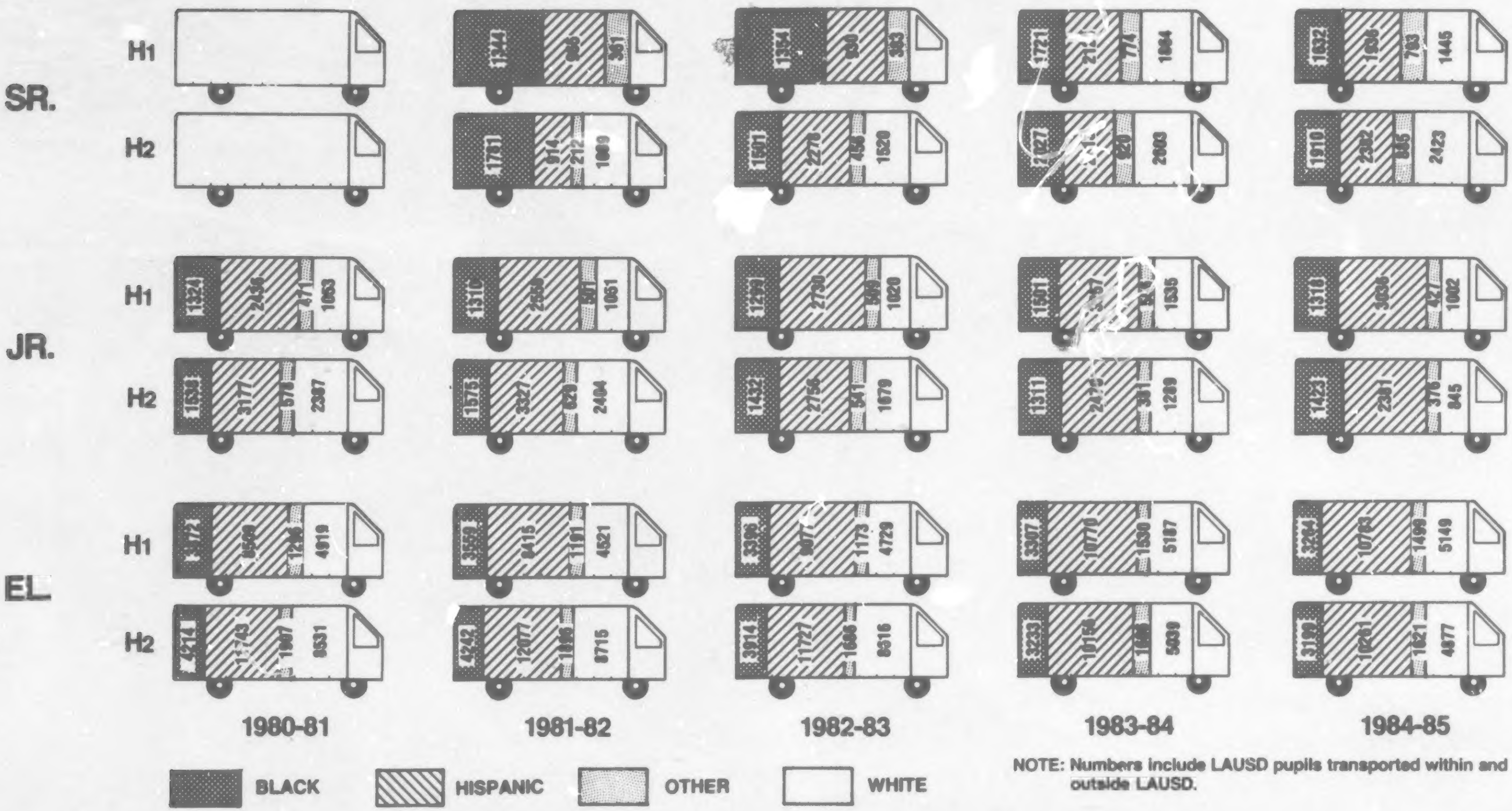


NOTE: Numbers include LAUSD pupils transported within and outside LAUSD.

CHART 124

AREA RESOURCE UTILIZATION PLANS H1 AND H2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

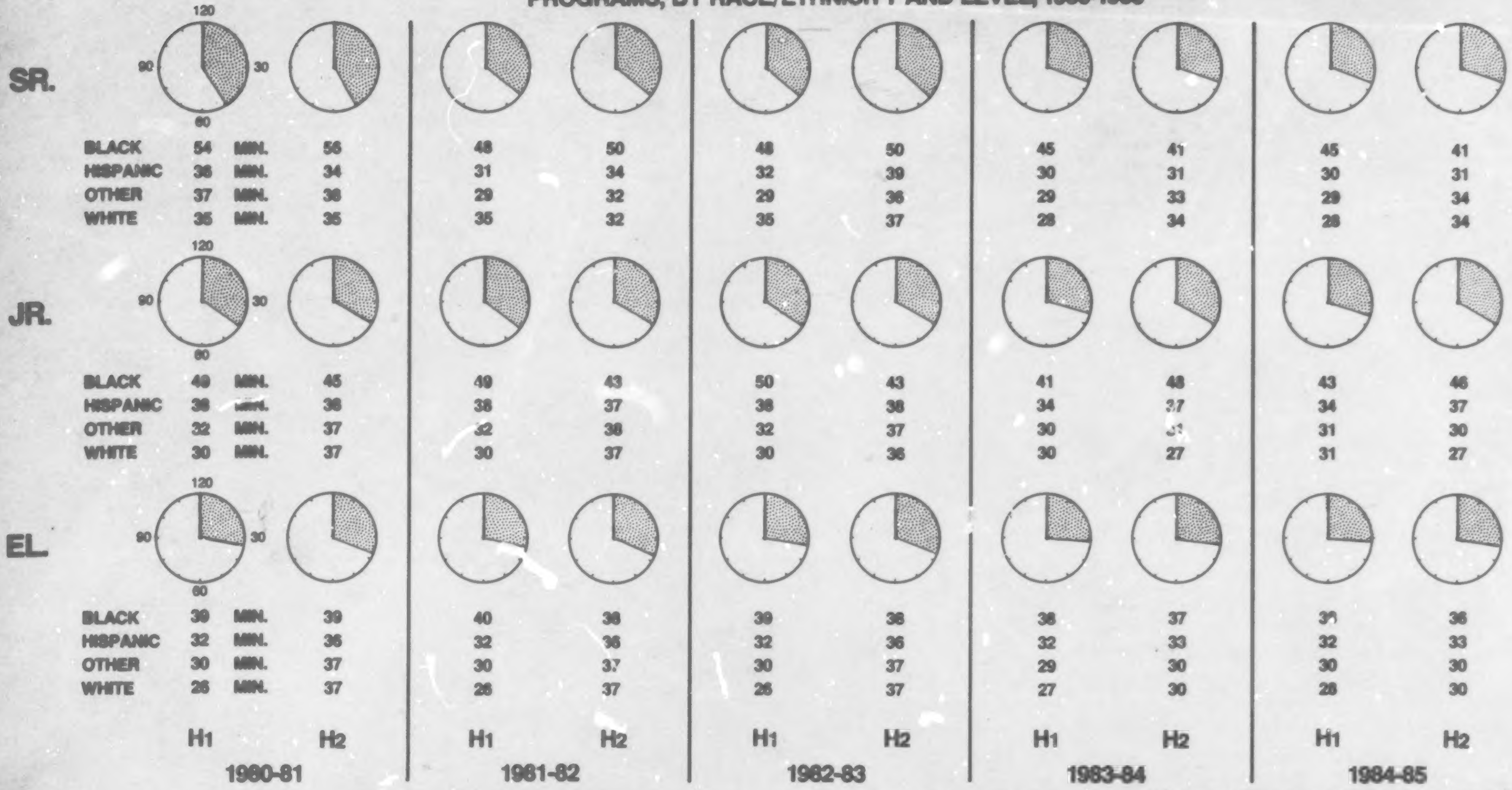


NOTE: Numbers include LAUSD pupils transported within and outside LAUSD.

CHART 125

AREA RESOURCE UTILIZATION PLANS H_1 AND H_2

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

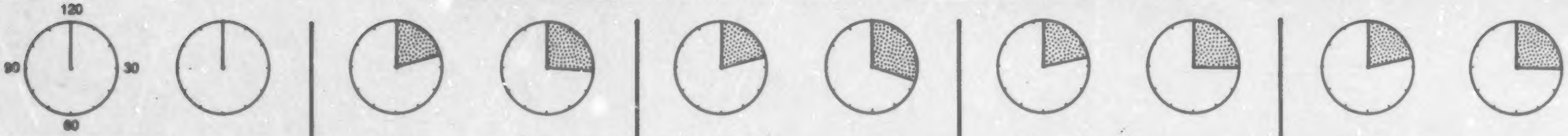


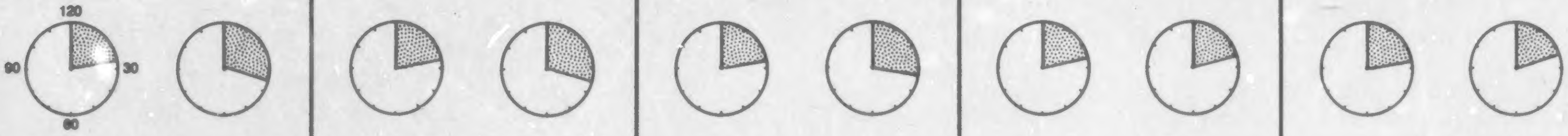
		1980-81 H1	1980-81 H2	1981-82 H1	1981-82 H2	1982-83 H1	1982-83 H2	1983-84 H1	1983-84 H2	1984-85 H1	1984-85 H2
SR.	BLACK	54 MIN.	56	48	50	48	50	45	41	45	41
	HISPANIC	36 MIN.	34	31	34	32	39	30	31	30	31
	OTHER	37 MIN.	36	29	32	29	36	29	33	29	34
	WHITE	35 MIN.	35	35	32	35	37	28	34	28	34
JR.	BLACK	49 MIN.	45	49	43	50	43	41	48	43	46
	HISPANIC	38 MIN.	38	38	37	38	38	34	37	34	37
	OTHER	32 MIN.	37	32	38	32	37	30	31	31	30
	WHITE	30 MIN.	37	30	37	30	36	30	27	31	27
EL.	BLACK	39 MIN.	39	40	38	39	38	38	37	39	36
	HISPANIC	32 MIN.	36	32	36	32	36	32	33	32	33
	OTHER	30 MIN.	37	30	37	30	37	29	30	30	30
	WHITE	26 MIN.	37	26	37	26	37	27	30	28	30

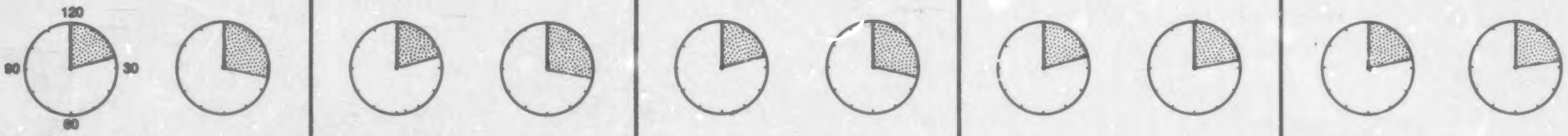
NOTE: Numbers include travel time for LAUSD pupils transported within and outside LAUSD.

CHART 126

AREA RESOURCE UTILIZATION PLANS H1 AND H2
PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED, BY RACE/ETHNICITY AND LEVEL, 1980-1985







		1980-81			1981-82		1982-83		1983-84		1984-85	
		H1		H2	H1	H2	H1	H2	H1	H2	H1	H2
SR.	BLACK	0	MIN.	0	26	32	26	29	26	30	26	31
	HISPANIC	0	MIN.	0	27	32	27	39	26	28	26	29
	OTHER	0	MIN.	0	26	28	26	36	26	32	28	33
	WHITE	0	MIN.	0	0	31	0	36	27	33	26	34
JR.	BLACK	25	MIN.	30	25	31	25	30	25	25	25	24
	HISPANIC	28	MIN.	34	28	35	28	33	27	26	27	25
	OTHER	27	MIN.	36	27	37	27	36	25	25	25	24
	WHITE	27	MIN.	36	27	38	28	36	27	24	27	22
EL.	BLACK	26	MIN.	32	26	32	26	31	26	26	26	27
	HISPANIC	25	MIN.	33	25	33	25	32	25	26	26	27
	OTHER	25	MIN.	36	26	36	26	36	26	26	26	27
	WHITE	23	MIN.	37	23	36	23	37	25	28	26	26

NOTE: Numbers include travel time for LAUSD pupils transported within and outside LAUSD.

Variations I1 and I2

Basic Ground Rules

Variations I1 and I2 assume that the LAUSD will have embarked upon the voluntary/mandatory desegregation Plan projected under the labels F1 and F2 in Part V. That is, a Plan that spreads the mandatory elements of the desegregation program gradually through the grades, adding two grades per year, so that all of them are incorporated by the fourth year of the projection period. This Plan does not permit application for the assignment to any voluntary aspects of the program before the racial/ethnic balance of each school is assessed and its eligibility for mandatory linkage is determined. Finally, it exempts schools from mandatory linkage only when, including the effects of voluntary transfers, the school meets the basic "Desegregated" standard (at least 40% each of Whites and Combined Minorities).

Difference Between the Variations

Plans I1 and I2 differ from each other in only one respect:

- -- Plan I1 is built upon voluntary/mandatory variation F1, which imposes a 30-minute limitation on the travel time of any mandatorily-assigned pupil who is transported to another LAUSD school.
- -- Plan I2 is built upon voluntary/mandatory variation F2, which imposes a 45-minute limitation on the travel time of any mandatorily-assigned pupil who is transported to another LAUSD school.

It will be recalled that in both cases there is a 30-minute limit on the travel time of any pupil who is mandatorily-assigned to a school outside the LAUSD.

Number of Segregated and Desegregated Schools

Chart 127 shows the number of District schools that would fall into the "Segregated" and "Desegregated" categories under each of the variations during the period 1980-85. (The characteristics of the model do not permit projection of the number of neighboring district schools that would also be Desegregated by this Plan. However, the model does control to be certain that no extra-District school is made Segregated by an inflow of LAUSD pupils.

In brief, as the Chart shows:

- In Plan I1 the number of Desegregated LAUSD schools starts at 185 (or 28%) in 1980-81 and falls to 163 (or 25%) by 1984-85. The corresponding numbers for Plan I2 are 232 (or 36%) and 177 (or 27%).
- In Plan I1 the number of Segregated schools starts at 456 (or 71%) in 1980-81 and rises to 475 (or 74%) by 1984-85. The corresponding numbers for Plan I2 are 396 (or 63%) and 461 (or 72%).
- In Plan I1, within the "Segregated" category, the number of RIWS declines from 68 to 20 by 1985, while RIMS increase from 388 to 455. The corresponding figures for Plan I2 are 25 to 15 in the case of RIWS and 371 to 446 in the case of RIMS.

Overall, the simulation indicates that the additive area-wide element in the two Plans would not result in any noticeable increase in the aggregate number of Desegregated LAUSD schools that would have resulted from the operation of the intra-District element alone. Indeed, in some years of the projection period, the area-wide Plan actually desegregates fewer total schools. This is not the case with the number of pupils afforded a Desegregated educational experience outside the District, as will be noted below, and it is also true that the bulk of these pupils would come from RIMS, which are not reached in any substantial numbers by any intra-District voluntary/mandatory plan. Nevertheless, because these area-wide Plans do not bring any Whites into the RIMS, those schools do not become Desegregated by the loss of a number of Minority pupils. In most cases, they simply become smaller in total enrollment.

Thus neither Plan would desegregate more than 37% of LAUSD schools in 1980-81, nor retain more than 28% of them in that category in 1984-85. Under Plan I1 the prospect is for decline in the first three years, followed by a mild upsurge in the fourth, and a sharp drop in the fifth. Plan I2 would yield a higher starting number of Desegregated schools, but the number would decline as the period proceeds.

The model emerges in some years with a lower projected total of Desegregated schools for the area-wide Plans than for the intra-District Plans to which they are added because of the phenomenon of flight. These simulations assume that mandatory pupil assignments are announced in the spring preceding the start of the school year when they are to take effect. Pupils (or their parents) then make their decision with respect to the following fall. The flight sub-model forecasts how many are likely to elect to leave. When the flight sub-model is applied to the larger number of schools that would be involved in an area-wide Plan (as compared with its intra-District component alone), more pupils are predicted to leave the LAUSD. (It should be remembered that the 1978-80 flight is not an exclusively White phenomenon; Minority pupils have demonstrated flight rates that are substantially lower, but still significant.) These departures affect the number of applicants to Magnets and PWT, even under Plans such as I1 and I2, which do not exempt pupils who volunteer for Magnets or PWT from mandatory assignment. The result in some years is failure to create or maintain racial/ethnic balance in a few of the schools that would have become Desegregated under the intra-District element of the Plan operating alone. This loss of schools may be seen as the tradeoff required for the increment of pupils sent to Desegregated suburban schools that the area-wide Plans result in.

Still, the simulation indicates that the *immediate effect* of introduction of either Plan in 1980-81, as compared with the actual situation in 1979-80, would be an increase, ranging from modest to substantial, in the number of Desegregated LAUSD schools. Plan I1 would raise the current number from 173 to 185, a growth of 7%. Plan I2, on the other hand, would increase the current actual number of 232, a 34% enlargement. All of this increase, as noted above, would result from the intra-District element of the Plan. Both Plans would accomplish substantial additional desegregation of schools in all the projected years as compared with the absence of any desegregation plan at all. Plan I1 would desegregate 120 more schools in 1980-81 and 100 more in 1984-85 than would be expected in the absence of a plan. Plan I2 would desegregate 167 more schools in 1980-81 and 114 more in 1984-85 than would demographic forces operating without intervention by a plan.

The *difference between the two Plans* -- the lower intra-District travel time ceiling in Plan I1 -- has important effects. Convergence between the effects of the two occurs, but not immediately or completely. Plan I2 still would desegregate 18 more schools than Plan I1 in the fifth year of the projection period. In a context in which pupils are not permitted to exempt themselves through voluntary action *and* may be sent outside the District, the "advantage" provided by the higher intra-District travel time limit in Plan I1 maintains some ability to make a difference in the aggregate effect even in the latter years of the projection period. The convergence is more pronounced with respect to the evolution of RIWS and RIMS. The projected RIWS totals for the two Plans are only five schools apart in 1984-85, although they start the period 43 schools apart. The RIMS projections are never more than 17 schools apart in any year of the projection period. Put another way, the results of addition of an area-wide element to the F1-F2 intra-District configuration, within the "Segregated" category of schools, are convergent but not identical for RIMS, but closer to identity in the case of RIWS. However, as already noted, many

RIMS would be smaller in enrollment than would be the case if the area-wide aspect were not contained in the Plan.

Pupils in Segregated/Desegregated Schools

The system-wide enrollment projections generated by these two variations involve substantial pupil flight. And, since more schools are involved in mandatory transportation in one Plan than in the other, the flight estimates for the two differ. For Plan I1 the total 1984-85 student body is projected to be 531,000 pupils, of whom 117,000 (or 22%) would be Black, 287,000 (or 54%) would be Hispanic, 48,000 (or 9%) would be Other Minorities, and 80,000 or 15% would be White. The total pupil population represents a loss of 65,000 (or 11%) below what would be projected for that year if there were no court-ordered desegregation plan. Most of these would be Whites, who would show a 33% drop below the demographic projection.

Plan I2 is projected to produce a total pupil population of 529,000 in 1984-85, of whom 17,000 (or 22%) would be Black, 288,000 (or 54%) Hispanic, 48,000 (or 9%) Other Minorities, and 77,000 (or 15%) White. The loss from demographic expectations would be 67,000 pupils (or 11%) below demographic projections.

Chart 128 depicts the numbers of pupils attending schools both inside and outside the LAUSD in each category under each Plan during the projection period. In brief, it shows that:

-- Under Plan I1 in 1980-81, 137,000 LAUSD pupils (or 26%) would be enrolled in Desegregated schools both inside and outside the District. Of these, 3,600 (or 1% of all LAUSD pupils) would be attending schools in neighboring districts. The corresponding figures for Plan I2 are 160,000 (or 32%) and 2,800 (or 1%).

Under Plan I1 in 1980-81, 384,000 LAUSD pupils (or 74%) would be enrolled in Segregated schools both inside and outside the District. Of these 7,800 (or 2%) would attend schools in neighboring districts. The corresponding figures for Plan I2 are 338,000 (or 68%) and 6,000 (or 2%).

-- In 1984-85, Plan I1 would result in 118,000 (or 22%) LAUSD pupils enrolled in Desegregated schools inside and outside of the District. Of these 4,600 (or 4%) would attend schools in neighboring districts. The corresponding figures for Plan I2 are 126,000 (or 24%) and 4,600 (or 37%).

-- In 1984-85, Plan I2 would result in 413,000 (or 78%) of LAUSD pupils enrolled in Segregated schools inside and outside of the District. Of these, 11,000 (or 3%) would attend schools in neighboring districts. The corresponding figures for Plan I2 are 403,000 (or 76%) and 11,000 (or 3%).

Overall, the simulation indicates that the maximum number of LAUSD pupils that would be placed in Desegregated schools by either Plan would be 160,000 (or 32%), which would be accomplished by Plan I2 in the first year of the projection. Of these, 3,000 (or 1%) would be enrolled outside the District. An additional 6,000 (or 1%) of LAUSD pupils would be transported outside the District to schools which, although Segregated, would be segregated in the opposite direction from their home schools (i.e., the predominant racial/ethnic group -- which would be White in all cases -- would not be the one to which they belonged.) Both the total number of pupils sent out of the District and the total sent out to Desegregated schools are projected to grow steadily over the period, so that the highest of both is reached in the last two years projected. Yet, neither Plan, even incorporating the pupils in Desegregated schools outside the District, would yield more than 126,000 desegregated LAUSD pupils (or 24% of all District pupils) in 1984-85. This pattern of *pupil* desegregation would be the same as the pattern effected in the desegregation of LAUSD *schools*.

The model suggests that the *immediate effect* of introduction of either Plan, as compared to actual conditions in 1979-80, would be a substantial increase in the aggregate number of pupils in Desegregated schools, both inside and outside of the District. Plan I1 would result in 19,000 (or 16%) more pupils in such institutions than are currently in them, and Plan I2 would yield 42,000 (or 36%) more than the current level. Both Plans would effectuate much more desegregation of pupils than would have occurred in the absence of any plan. Plan I1 is forecast to put 74,000 more pupils in this situation in 1980-81 and 64,000 more in 1984-85 than would be expected to result from demographic pressures alone. The corresponding figures for Plan I2 are 97,000 1980-81 and 72,000 in 1984-85.

Looking across the full projection period, *the two Plans* again show the somewhat stately converging phenomenon already described with regard to schools. By 1984-85, the difference between the number of pupils in Desegregated schools in one Plan as against the other is only 8,000. Again, the model's suggestion is that 15 minutes' difference in travel ceiling, when combined with prohibition of the voluntary exemption and an area-wide element, can keep the variations from converging quickly, but cannot keep them from converging at all.

Differential Effects on Grade Levels

Charts 129, 129A, 130, and 131 present the elementary, junior high school and senior high school effects of the two Plans, by racial/ethnic groups, inside the LAUSD only. In brief, they show that:

-- Among elementary school pupils, sixth graders would make up the highest proportion (15-16%) in both Plans and in all years, while first graders would comprise the least (13-15%).

- All junior high school pupils would be in the 32-35% range in both Plans in all years.
- Among senior high school pupils, tenth graders would be the largest group (36-39% in both Plans), while twelfth graders would be the smallest (26-29%).
- Between 71% and 80% of all elementary school pupils would be in Segregated schools under either Plan throughout the period, with the share growing each year. The corresponding range for junior high schoolers would be 61-75%, and for senior high school enrollees 65-76%.

Overall, the simulation indicates that the addition of an area-wide feature of the type expressed in these variations would have virtually no effect on the grade distribution of pupils in Desegregated LAUSD schools. The distribution shown above is almost identical to what would result from Plans D1 and D2 alone. This follows from the fact that the effect of the area-wide component turns out always to be transportation of Minority LAUSD pupils, the great bulk of whom would come from RIMS that would not be Desegregated either before or after the transportation of some of their enrollees outside the District. Thus, there is no discernible effect upon the grade structure of desegregation within LAUSD.

Racial/Ethnic Mix of Schools

Charts 132, 133, and 134 present the racial/ethnic mix of, respectively, elementary, junior high, and senior high school in the LAUSD under the two Plans. This provides a more sensitive indicator of the degree of segregation/desegregation than the simple dichotomy presented earlier. In brief, these Charts indicate that:

- The number of elementary schools in the two bands closest to "Desegregated" (20-40%

and 60-80% Combined Minority) created by the two Plans in 1980-81 ranges from 52 (or 12% of all elementary schools) to 80 (or 18%). By 1984-85, this range changes to 7-8%.

-- The number of elementary schools in the two bands closest to "Segregated" (0-20% and 81-100% Combined Minority) created by these Plans in 1980-81 ranges from 229 (or 49% of all elementary schools) to 238 (or 52%). By 1984-85, this range changes to 64-65%.

-- The number of junior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 9 (or 11%) of all junior high schools) to 15 (or 17%). By 1984-85, this range changes to 6-8%.

-- The number of junior high schools in the bands closest to "Segregated" in 1980-81 ranges from 41 (or 49% of all junior high schools) to 45 (or 52%). By 1984-85, this range changes to 67-69%.

-- The number of senior high schools in the bands closest to "Desegregated" in 1980-81 ranges from 18 (or 20%) of all high schools) to 21 (or 22%). By 1984-85, this range closes to 16%.

-- The number of senior high schools in the bands closest to "Segregated" in 1980-81 ranges from 54 (or 58% of all senior high schools) to 57 (or 59%). By 1984-85, this range changes to 61-63%.

-- The senior high schools begin the period most heavily segregated in both Plans, but give way to the junior high schools by the end of the five years.

Overall, the area-wide element in these Plans seems to generate no discernible effect at all upon the distribution of the various levels of schools in the District. This pattern is precisely congruent with that which would be created if Plans F1 and F2, the underlying intra-District variations, were applied alone.

Pairs/Clusters/Midsites

The complexities inherent in projecting the interplay of pupil flight and the announcement and partial activation of Pairs/Clusters/Midsites are discussed in the corresponding analysis of variations C1 and C2 (page 113). It is assumed here that the reader has read that discussion and, therefore, understands the terms used in this Section.

Charts 135 and 136 list the originally announced Pairs/Clusters/Midsites formed by the model under the restrictions of Plans I1 and I2, distinguishes those that are in fact activated, and separates them by how long each set lasts in the face of demographic pressures. (It will be recalled that matchings are made twice in the course of the five year period, once before the 1980-81 school year and again before the 1983-84 year, and that all Clusters contain three schools.) In brief, the Chart shows that:

- Plan I1 would result in an announced total of 68 Pairs, eight Clusters, and four Midsites (of which 36 Pairs, seven Clusters, and four Midsites would be activated in 1980-81, changing to 65 announced Pairs, no Clusters, and ten Midsites (of which 54 Pairs and nine Midsites would be activated) by 1984-85.
- Under Plan I1, no current Pairs, Clusters, or Midsites would be preserved in future years. All 68 Pairs, eight Clusters, and four Midsites would be announced in 1980, of which two Pairs would last through 1985.

Sixty-three new Pairs, no new Clusters, and ten new Midsites would be announced in 1983.

- Plan I2 would result in an announced total of 118 Pairs, seven Clusters, and 14 Midsites (of which 71 Pairs, seven Clusters, and 14 Midsites would be activated) in 1980-81, changing to 75 announced Pairs, no Clusters, and one Midsite (of which 69 Pairs would be activated) by 1984-85.
- Under Plan I2, no current Pairs, Clusters, or Midistes would endure in future years. All 120 Pairs, three Clusters, and 10 Midsites would be announced in 1980, of which one would last through 1985. Seventy-four new Pairs, no Clusters, and no Midsites would be announced in 1983.

Overall, it is first striking that very few of the matchings survive a reassignment round. None of the current (1979-80) groups would be preserved by either Plan. Of the new matches made in 1980, only two would emerge from the 1983 reassignment under Plan I1, and only one would survive under Plan I2. This reflects the speed at which underlying demographic forces are changing the composition of local pupil populations. Within three years after matching schools in order to maximize desegregation, very few -- or none -- of the resulting matches are any longer valid. That is to say, in order to use the available pupil population in such a way as to maximize the number of Desegregated schools, nearly every eligible school must be reassigned to a different grouping. Also, the new matches become less and less efficacious over time.

The addition of the area-wide component in these Plans would make very important changes in the school groupings formed, as against those that would be formed by the intra-District component alone. Neither area-wide variation would have even a majority of groups in common with the intra-District configuration in either assignment interval. Plans F1 and I1 would form in same number of Pairs (68) in 1980, but 31 that appear in each Plan would not appear in the other. The same would be true of seven Midsites each. The area-wide component does not make large changes in the number of groups, as compared with the underlying intra-Disrict Plan taken alone. But in the case of this set of variations, it would change a good number of the announced destinations of the pupils to be transported.

The effects of pupil flight and demographic forces in completely invalidating announced groupings (and thereby keeping them from ever being activated) are quite noticeable in both Plans at several points during the projection period. In Plan I1, they invalidate 33 groupings (or 41% of all groupings) in 1980-83, and 12 (or 8%) in 1983-85. In Plan I2, these factors invalidate 47 groupings (or 34%) in 1980-83, and six (or 8%) in 1983-85. These figures, and the asterisks on the Charts, refer to total invalidations -- cases where the grouping would never be activated during the projection period. Groupings may also be partially invalidated, in the sense that pupils would not be transported between the linked schools in one or more years of the period in which the grouping is formed. Plan I1 would have 12 groupings (ten Pairs, one Cluster, and one Midsite -- or 26% of the activated groups) partially invalidated in 1980-83, and nine (all Pairs -- 14% of all activated groups) in that status during 1983-85. Plan I2 would have 25 groupings (16 Pairs, five Clusters, and four Midsites -- 27% of all active groups) partially out of service during the first interval, and six (all Pairs -- 9% of all active groups) partially invalidated in 1983-85.

Both plans would encounter less partial invalidation during the latter portion of the period, at least in part because it would last two years rather than three, providing less time for flight and demography to work. In the initial period, 12-25 (26-27% of all active) groupings created under either Plan would not be transporting pupils in at least one year. In the second interval, 6-9 (or 9-14%) of all activated groups in each Plan would skip one year. Thus, the uncertainty about whether a group would operate as a group in any particular year would decline as the number of activated groups declined. Nevertheless, it is clear that the flight/demography combination would be very restrictive of the operation of mandatory linkages under the rules that govern this variation, particularly Plan I1. In the 1980-83 interval, 45 of 80 groupings (56%) announced under this Plan would be fully or partially invalidated by these factors, and even more (59, or 79%) would be in this category in 1984-85. Plan I2 would have 72 groupings fully or partially dormant in the first period, but only 12 during the second.

The immediate effect of introduction of either Plan, as compared to the actual situation in 1979-80, would be, as noted above, a complete change in the groupings of schools that are employed this year. Under Plan I1 there would also be a large decrease in the number of each kind of grouping now in actual use. Under Plan I2 the total number of announced Pairs/Clusters/Midsites in 1980-81 would be more than double the number actually in effect in 1979-80, but the number activated would be about the same. The principal perceived difference would probably be the confusion caused by a large number of announced groupings in the spring, which then turned into a much smaller number of activated groupings in the fall.

The two Plans result in very different programmatic contours, illustrating the great importance to Pairing/Clustering/Midsiting of the 15-minute travel time allowance that divides them. The extra time results in nearly twice as many groupings in Plan I2 as in Plan I1. And they are mostly new groupings -- 13 of the Pairs announced in 1980 and 23 of the ones announced in 1983 are the same in the two Plans. The Plans form no Clusters or Midsites in common. Thus, although there would be more overlap here than between most variations, the destinations of pupils involved in mandatory transport would be largely different, depending on which plan were chosen.

Magnet Schools

The interplay between Magnet demand and demographic forces creates a different Magnet list for each Plan for each year of the period. A simplified chart presentation of Magnet effects is not possible. In brief, the projections show the following:

-- Plan I1 would result in a total of 40 Magnets in 1980-81, of which 8 would be new and 32 would be from the current list. Of the current ones that would be preserved, 32 (or 80% of all Magnets) would be Segregated by the definition used herein. Plan I2 would generate 27 total Magnets in that year, 21 new and 6 old, of which 21 (or 78% of all Magnets) would be Segregated.

-- In 1984-85, Plan I1 would yield a total of 37 Magnets, of which 31 would be Segregated. The corresponding numbers for Plan I2 would be 37 and 30 (or 81% of all Magnets).

-- Under Plan I1, 29 current Magnets would operate through the entire projection period, while six of those first opened in 1980-81 would survive the full five years. Under Plan I2, 15 current Magnets would last the full period, and four of the 1980-81 crop would endure.

-- The number of pupils attending Magnets in 1980-81 under Plan I1 would be 5,000 (or 1% of all pupils). These pupils would be 30% Black, 42% Hispanic, 7% Other Minorities, and 22% White. Under Plan I2, the total number of pupils would be 3,000 (or 1% of all pupils), and the racial/ethnic breakdown all pupils), and the racial/ethnic breakdown would be 32% Black, 43% Hispanic, 5% Other Minorities, and 20% White.

-- By 1984-85 the number of pupils attending Magnets under Plan I1 would fall to 4,800 (or 1% of all pupils). They would then be 24% Black, 54% Hispanic, 8% Other Minorities, and 14% White. Under Plan I2 the total number of pupils in 1984-85 would be 4,900 (or 1% of all pupils), of whom 23% would be Black, 54% Hispanic, 8% Other Minorities, and 15% White.

Overall, Plans I1 and I2, particularly the latter, would result in significantly greater shrinkage in Magnet programs than would occur with the underlying intra-District variations alone. The intra-District Plans (F1 and F2) would by themselves reduce the program to about half its current level, but Plans I1 and I2 would take it down another 20% or so. The first dip reflects the fact that pupils would no longer gain exemption from mandatory assignment by successful application to a Magnet. The area-wide element's increment to this effect results from its addition of another category of mandatory assignments that would, in these variations, take precedence over Magnet participation. Adding in this feature, Magnet enrollment is projected to fall to 3-5,000 in 1980-81. It would then remain static at just under 5,000 in the case of Plan I1, and rise to about the same level at the end of the period in the case of Plan I2.

The immediate effect of the installation of either Plan, as compared with actual conditions in 1979-80, would be a sharp reduction in the number of Magnets (from 59 to 27-40), and in their enrollment (from 12,000 to 3-5,000). Racial/ethnic balance would also change completely, shifting from 56% Combined Minority to 78-80%.

The two plans would get to their common 1984-85 result by opposite routes. Plan I1, involving fewer mandatory linkages, would preempt fewer pupils with mandatory programs and effect an initial cut of 58%, followed by relative stasis. Plan I2, however, would result in an immediate 75% reduction, followed by a slow adding back of schools and pupils as its mandatory linkages waned. By the end of the projection period, the Plans would meet at almost precisely the same aggregates.

Pupils Transported

Chart 137 shows the total number of pupils who would be transported under the two Plans, by level and the race/ethnicity of the pupils involved. In brief, it suggests that:

-- In 1980-81 Plan I1 would result in transportation of 45,000 (or 9%) of all LAUSD pupils to schools inside and outside of the District. Of these, 11,000 (or 2%) would be transported to neighboring districts. Thirty-five percent of these outbound pupils would attend Desegregated schools.

-- In 1980-81 Plan I2 would result in transportation of 48,000 (or 10%) of LAUSD pupils to schools inside and outside of the District. Of these, 9,000 (or 2%) would be transported to neighboring districts. Thirty-three percent of these outbound pupils would be sent to Desegregated schools.

-- By 1984-85, Plan I1 would generate transportation of 47,000 (or 9%) of all LAUSD pupils to schools inside and outside of the District. Of these, 16,000 (or 3%) would be transported to neighboring districts. Twenty-nine percent of these outbound pupils would be sent to Desegregated schools.

-- By 1984-85, Plan I2 would yield transportation of 46,000 (or 9% of all LAUSD pupils) to schools inside and outside of the District. Of these, 16,000 (or 3%) would be transported to neighboring districts. Twenty-nine percent of the outbound pupils would be sent to Desegregated schools.

-- The burden of transportation would fall predominantly on Minority pupils under both Plans. In 1980-81, 84% of all pupils transported under Plan I1 would be Minority, with Blacks making up 40%, Hispanics 39%, and Other Minorities 5%. In 1984-85, 80% of all pupils transported under Plan I1 would be Minority, with Blacks comprising 27%, Hispanics 46%, and Other Minorities 7%. Under Plan I2 in 1980-81, 75% of all pupils transported would be Minority, with Blacks making up 29%, Hispanics 40%, and Other Minorities 6%. By 1984-85, 79% of all pupils transported would be Minority, with Blacks comprising 26%, Hispanics 46%, and Other Minorities 1%.

-- Of all pupils in the system in 1980-81, 11-14,000 (or 9-11%) of Blacks would be transported to LAUSD schools, and 3-4,000 (or 3%) would be transported to schools in neighboring districts. The corresponding figures for Hispanics are 11-14,000 (or 5%) and 5-7,000 (or 3%); for Other Minorities 1,000 (or 3%) and 1-2,000 (or 3%); and for Whites 7-12,000 (or 6-11%) and 0 (or 0%).

-- Of all pupils in the system in 1984-85, 7-8000 (or 6-7%) of Blacks would be transported to LAUSD schools, and 5,000 (or 4%) would be transported to schools in neighboring districts. The corresponding figures for Hispanics are 12-23,000 (or4-8%), and 10,000 (or 3%); for Other Minorities 2-2,500 (or 4-5%), and 2,000 (or 4%); and for Whites 9-10,000 (or 11-13%), and 0 (or 0%).

Overall, the projections show the substantial increase in pupils transported that would be caused by the area-wide element in these Plans. Without this component, Plans F1 and F2 showed a noticeable drop in the transportation total over time. Plans I1 and I2 end the projection period at 46-47,000, or 14,000 more pupils than would be conveyed in Plans F1 and F2. This would represent a 4% increase in the first year total for Plan I1, but a 4% drop from the first year total for Plan I2. Both Plans would add to the total being transported outside the District as demography forced the activation of mandatory groupings and pupils in additional grades became eligible for assignment to surrounding districts. In Plan I1, this offset would result in a slow increase in total pupils transported. Plan I2 would start out transporting 5,000 more pupils inside the District and 2,000 fewer outside. However, as this Plan's intra-Disrict transportation became less productive of Desegregated schools, extra-District transportation would climb to equal the Plan I1 level. By the end of the period both Plans would transport 16,000 pupils to suburban schools, 71% of whom would attend schools segregated in the opposite direction from their own.

The immediate effect of adopting either Plan I1 or Plan I2 in 1980-81, as compared with actual conditions in 1979-80, would be to increse the number of pupils transported. The number transported would rise from 42,000 (or 8% of all pupils) in 1979-80 to 45,000 (or 9%) in 1980-81. The number mandatorily transported would rise from 16,000 to 24-35,000 (see Chart 138). The number of White pupils transported within the District would fall under Plan I2 to 7,000 (or 6%) and rise under Plan I2 by 4,000 pupils. The number of Combined Minorities transported would increase by 3-5,000 pupils and their share of all pupils transported would rise from the current 79% to 84% under Plan I1, and fall to 75% under Plan I2.

The two Plans follow opposite paths to their similar destinations. Plan I1 would start at 45,000 and move up gradually. Plan I2 would start higher and move downward gradually. In 1984-85 they would be 1,000 students apart and would involve transporting equal numbers of pupils to schools outside the LAUSD.

The total of pupils transported breaks down into those who would participate in Magnet programs and those who would hold Permits with Transportation (PWT). With respect to Magnets, the projections indicate the following:

-- Plan I1 would result in transportation of 5,000 pupils (or 1% of all pupils) to Magnets in 1980-81 and in 1984-85. Under Plan I2 the 1980-81 figure would be 3,000 (or 1% of all pupils), rising to a 1984-85 estimate of 5,000 (or 1%).

-- Under Plan I1 the 1980-81 total of pupils transported to Magnets would include 1,500 (or 29%) Blacks, 2,000 (or 42%) Hispanics, 345 (or 6%) Other Minorities, and 1,000 (or 32%) Whites. Plan I2 would result in 1,000 (or 32%) Black pupils being transported, 1,000 (or 43%) Hispanics, 155 (or 5%) Other Minorities, and 682 (or 20%) Whites.

-- Under Plan I1 the 1984-85 total of pupils transported to Magnets would include 1,000 (or 23%) Blacks, 2,600 (or 54%) Hispanics, 394 (or 8%) Other Minorities, and 695 (or 15%) Whites. Plan I2 would include 1,000 (or 23%) Blacks, 2,600 (or 54%) Hispanics, 389 (or 8%) Other Minorities, and 722 (or 15% Whites.

Overall, under either Plan, the Magnet attendees' share of all pupils who would be transported would fall, and even the number of Magnet pupils transported would fall as compared to Plans F1 and F2. Magnet transportation would go from the 5-8,000 range to the 3-5,000 range in 1980-81 and from an F1-F2 level of 6,000 to 5,000 in 1984-85. The racial/ethnic mix of these pupils would show a modest rise in the Hispanic component, a fall in the White share, and relative stability for Blacks and Other Minorities. By the end of the period, no more than 1% of any group would be transported to Magnets.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a decrease in the number of pupils transported to Magnets. The current total of 7,000 would fall to 3-5,000. Despite the decline in the total, Combined Minorities would increase their share of the total group, rising from 56% of all pupils transported to Magnets to 78-80%.

The two Plans would be nearly identical in their effects on Magnet transportation by the end of the projetion period.

Below is the PWT forecast for these two Plans. The reader will recall that data gaps prevent "putting back" pre-1976-77 PWT pupils in their home schools for simulation purposes. Therefore, these projections do not include the successors of the 2,500-3,000 pupils that were already in the PWT program at that time; those pupils will show in the model as neighborhood Minority enrollees, mostly in a few predominantly White elementary schools on the West Side of the District. For this reason the projection will slightly understate the number of actual PWT participants. The reader will further recall that history provides no basis for assuming any but negligible PWT participation by Whites or Other Minorities; thus, all pupils projected to be transported in this program are Black Hispanic pupils.

In brief, the Chart shows that:

- Under Plan I1 the number of PWT pupils in 1980-81 would be 16,000 (or 4% of all Black/Hispanic pupils). The corresponding figure for Plan I2 would be 10,000 (or 2%).
- Of the Plan I1 total in 1980-81, 11,000 (or 71%) of PWT pupils would be Black, and 4,500 (or 29%) would be Hispanic. The Plan I2 results would be 7,000 (or 72%) Blacks, and 3,000 (or 28%) Hispanics.
- In 1984-85, both Plans I1 and I2 would place 8,000 pupils (or 2% of all Black/Hispanic pupils in PWT.
- Of the Plan I1 total in 1984-85, 5,000 (or 65%) would be Black, and 3,000 (or 35%) would be Hispanic. The corresponding figures for Plan I2 would be 4,500 (or 57%) Black, and 3,000 (or 43%) Hispanic.

Overall, the number of PWT participants in both Plans is virtually identical to the pattern in Plans F1 and F2. The area-wide element makes no difference to the projections set by the intra-District component, both involving a visible drop in PWT participation from 10-16,000 pupils at the outset of the period to 8,000 at the end.

The immediate effect of installation of either Plan, as compared with actual conditions in 1979-80, would be a drop in the number of pupils transported under this program. The current total is 18,000 (or 5% of all Black/Hispanic pupils), while the Plans lower this to 10-16,000.

Like Plans F1 and F2, these two Plans would be different but only in the early years of the period. Plan I1 would be 60% higher at the outset than Plan I2 but becomes almost interchangeable at the end, involving less than half as many pupils as are now transported in this program.

Average One-Way Travel Times

Chart 139 presents the average one-way travel times experienced by all pupils transported under the Plans. In brief, it shows that:

-- Plan I1 would result in 1980-81 in average travel times, inside and outside of the District, of 31 minutes for elementary school pupils, 42 minutes for junior high school pupils, and 51 minutes for high school pupils. The average travel time for all pupils sent out of the District, all of whom would be Combined Minority, would be 26 minutes. The corresponding figures for Plan I2, are 30 minutes, 36 minutes, and 35 minutes, with an average of 26 minutes for pupils, all of whom would be Combined Minority, sent out of the LAUSD.

-- The 1980-81 Plan I1 figures would break down to an average of 47 minutes for all Black pupils, 32 minutes for all Hispanics, 28 minutes for Other Minorities, and 26 minutes for Whites. The Plan I2 figures for the same year would break down to an average of 46 minutes for all Black pupils, 35 minutes for all Hispanics, 37 minutes for Other Minorities, and 37 minutes for Whites.

-- In 1984-85, Plan I1 would generate average travel times of 30 minutes for elementary schools, 36 minutes for junior high pupils, and 35 minutes for senior high pupils. For all pupils sent out of the District, all of whom would be Combined Minorities, the average would be 26 minutes. The corresponding figures for Plan I2 are 31 minutes, 38 minutes, and 35 minutes, and an average for the all Combined Minorities sent outside the District of 26 minutes.

-- The 1984-85 Plan I1 figures would break down to an average of 41 minutes for all Black pupils, 31 minutes for all Hispanics, 28 minutes for Other Minorities, and 26 minutes for Whites. The Plan I2 figures for the same year would break down into an average of 40 minutes for all Black pupils, 32 minutes for all Hispanics, 30 minutes for Other Minorities, and 29 minutes for Whites.

Overall, the two Plans would both yield shorter average travel times over the period, moving from an all-transported-pupil average of 37-39 minutes in 1980-81 to 32-33 minutes in 1984-85. This would reflect the growth in the number of shorter trips outside the District (and governed by the 30-minute travel ceiling) as extra-District transportation becomes a larger component of total transportation. The area-wide element in the Plans would have a noticeable effect on travel times for Minority pupils, particularly on those of Blacks, at the end of the period. However, this is not so much a product of shortening pupil trips as of adding large numbers of new, shorter trips, to the base.

Summary of Quantifiable Findings

	Plan I1	Plan I2
Total Enrollment		
1980-81		
Expected	579,000	579,000
Flight	- 58,000 (or 10%)	- 81,000 (or 14%)
Projected Total	521,000	498,000
1984-85		
Expected	597,000	597,000
Flight	- 66,000 (or 11%)	- 68,000 (or 11%)
Projected Total	531,000	529,000
Desegregated Schools		
1980-81	185 (or 28%)	232 (or 36%)
1984-85	163 (or 25%)	177 (or 27%)
Segregated Schools		
1980-81		
RIWS	68	25
RIMS	388	371
Total	456 (or 74%)	461 (or 72%)
1984-85		
RIWS	20	15
RIMS	455	446
Total	475 (or 74%)	461 (or 72%)
Desegregated Pupils		
1980-81	137,000 (or 26%)	169,000 (or 32%)
1984-85	118,000 (or 22%)	126,000 (or 24%)

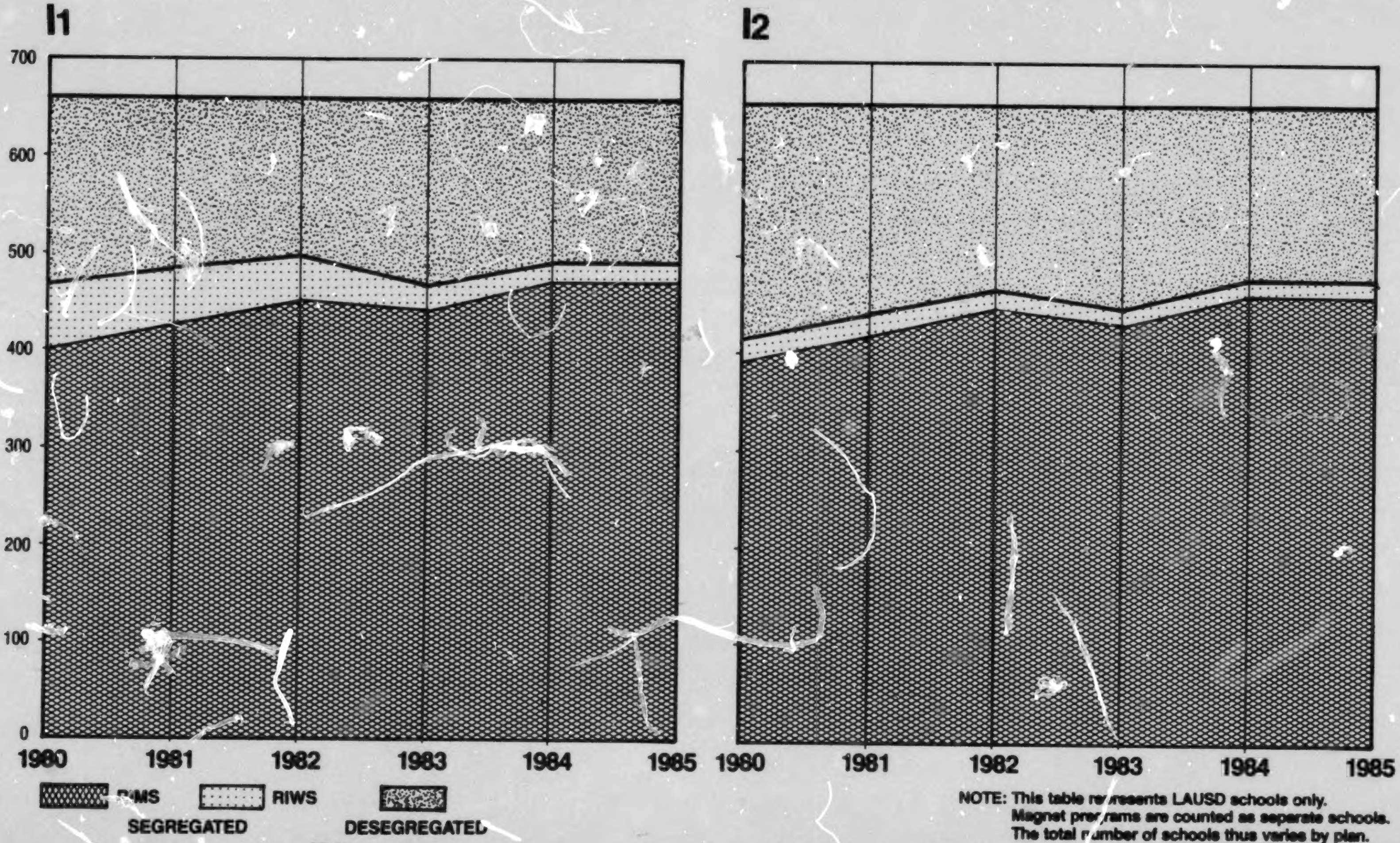
	Plan I1	Plan I2
Segregated Pupils		
1980-81	384,000 (or 74%)	338,000 (or 68%)
1984-85	413,000 (or 78%)	403,000 (or 76%)
Magnet Schools		
1980-81	40	27
1984-85	37	29
Magnet Pupils		
1980-81		
Desegregated	1,200 (or 22%)	1,600 (or 47%)
Segregated	4,200 (or 78%)	2,800 (or 53%)
Total	5,400	4,400
1984-85		
Desegregated	600 (or 13%)	600 (or 12%)
Segregated	4,200 (or 87%)	4,300 (or 88%)
Total	4,800	4,900
PWT Pupils		
1980-81		
Black	11,000 (or 71%)	7,000 (or 72%)
Hispanic	4,500 (or 29%)	3,000 (or 28%)
Total	16,000	10,000
1984-85		
Black	5,000 (or 65%)	4,500 (or 57%)
Hispanic	3,000 (or 35%)	3,000 (or 43%)
Total	8,000	8,000

	Plan I1	Plan I2
Total Pupils Transported		
1980-81		
Voluntary	21,000 (or 47%)	13,000 (or 27%)
Mandatory	24,000 (or 53%)	35,000 (or 73%)
Total	45,000	48,000
1984-85		
Voluntary	13,000 (or 28%)	13,000 (or 27%)
Mandatory	35,000 (or 72%)	34,000 (or 73%)
Total	47,000	47,000
Average Travel Times		
1980-81		
Overall	37 minutes	39 minutes
Black	47	46
Hispanic	32	35
Other Minority	28	37
White	26	37
1984-85		
Overall	32	33
Black	41	40
Hispanic	31	32
Other Minority	28	30
White	26	29

CHARTS FOR VARIATIONS I1 and I2

CHART 127

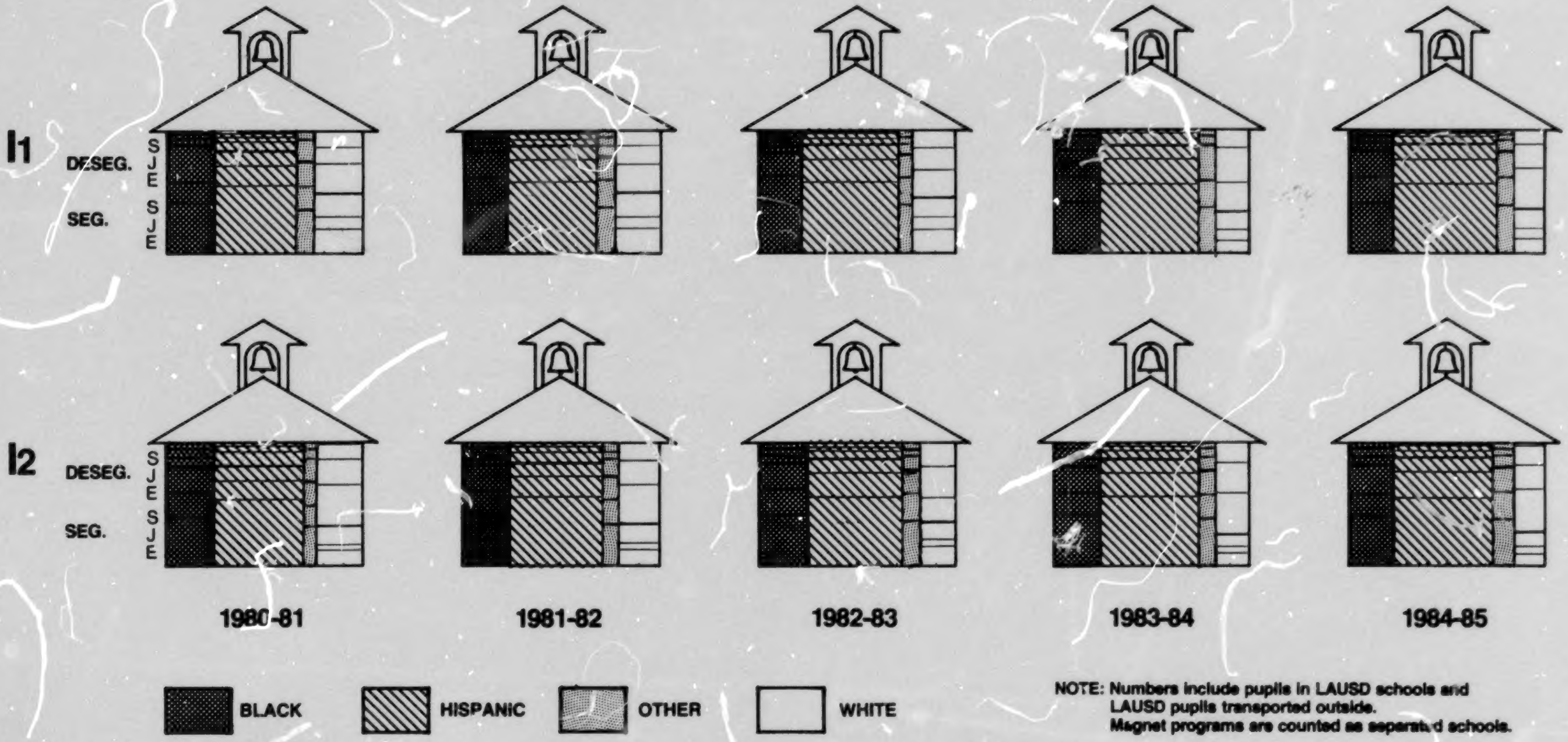
AREA RESOURCE UTILIZATION PLANS I1 AND I2
PROJECTED NUMBERS OF DESEGREGATED AND SEGREGATED SCHOOLS, 1980-1985



NOTE: This table represents LAUSD schools only.
Magnet programs are counted as separate schools.
The total number of schools thus varies by plan.

CHART 128

AREA RESOURCE UTILIZATION PLANS I_1 AND I_2
PROJECTED PROPORTION OF PUPILS IN SEGREGATED AND DESEGREGATED SCHOOLS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

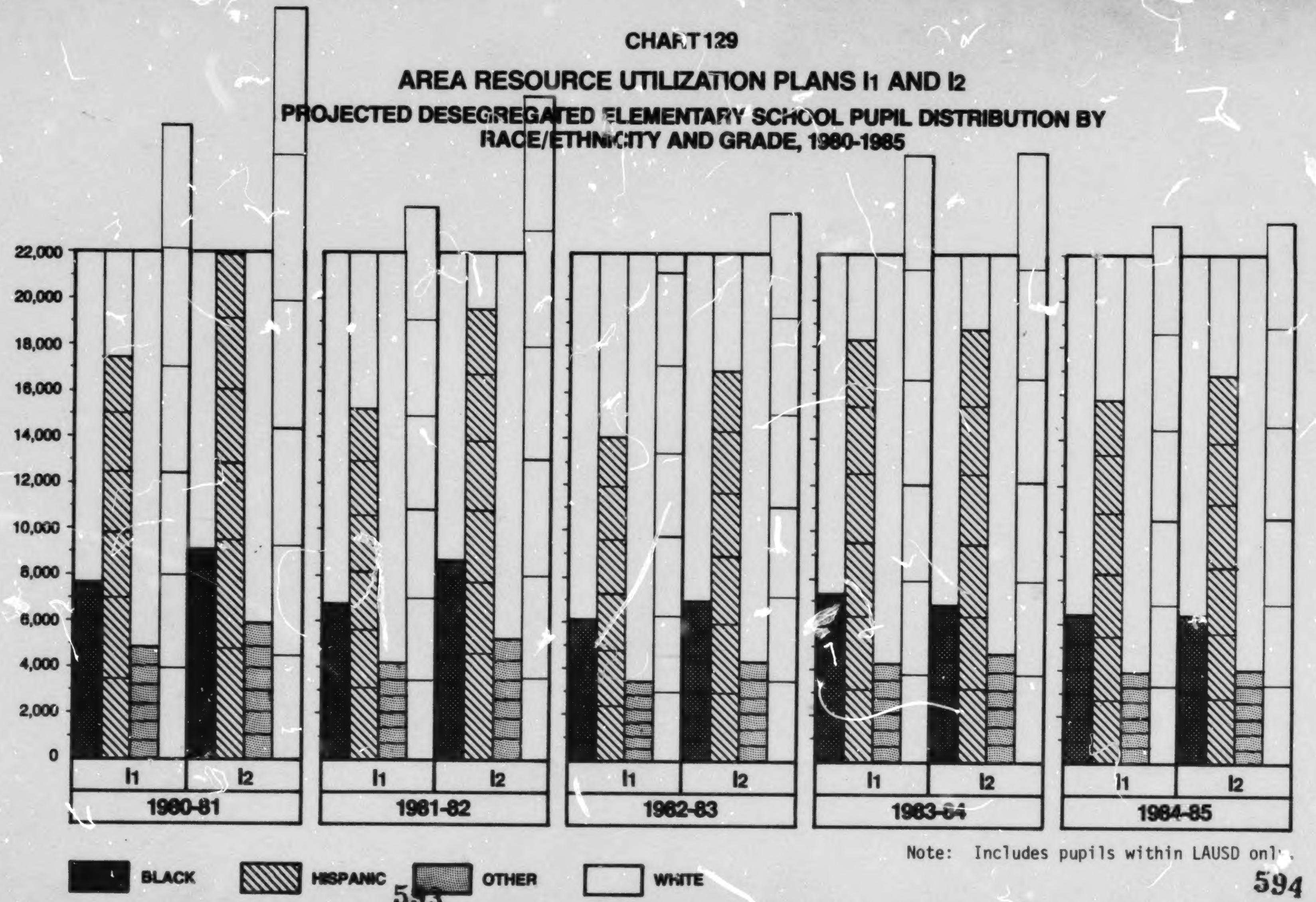


NOTE: Numbers include pupils in LAUSD schools and LAUSD pupils transported outside.
Magnet programs are counted as separated schools.

CHART 129

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED DESEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985



Note: Includes pupils within LAUSD only.

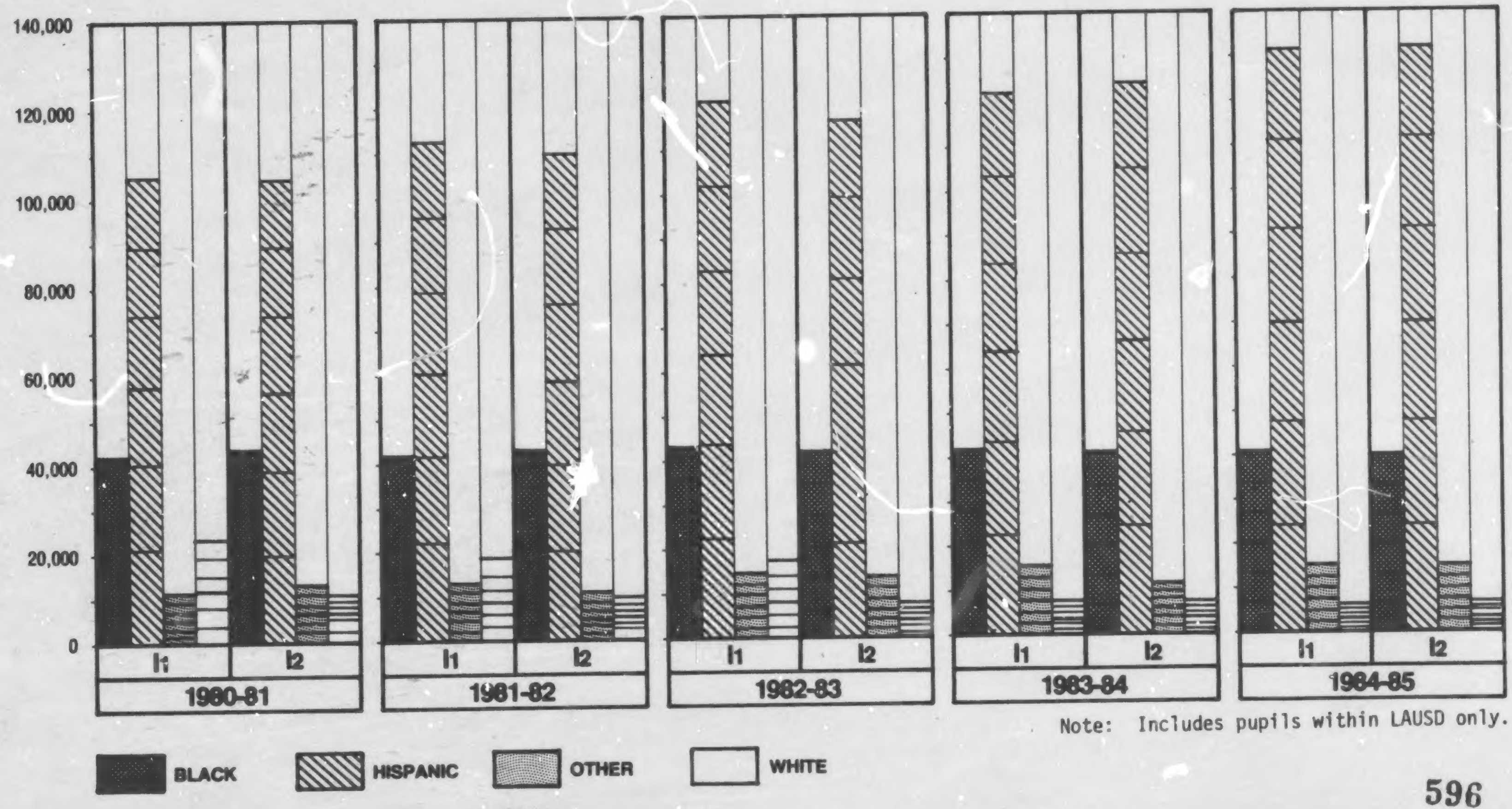
593

594

CHART 129 A

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED SEGREGATED ELEMENTARY SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

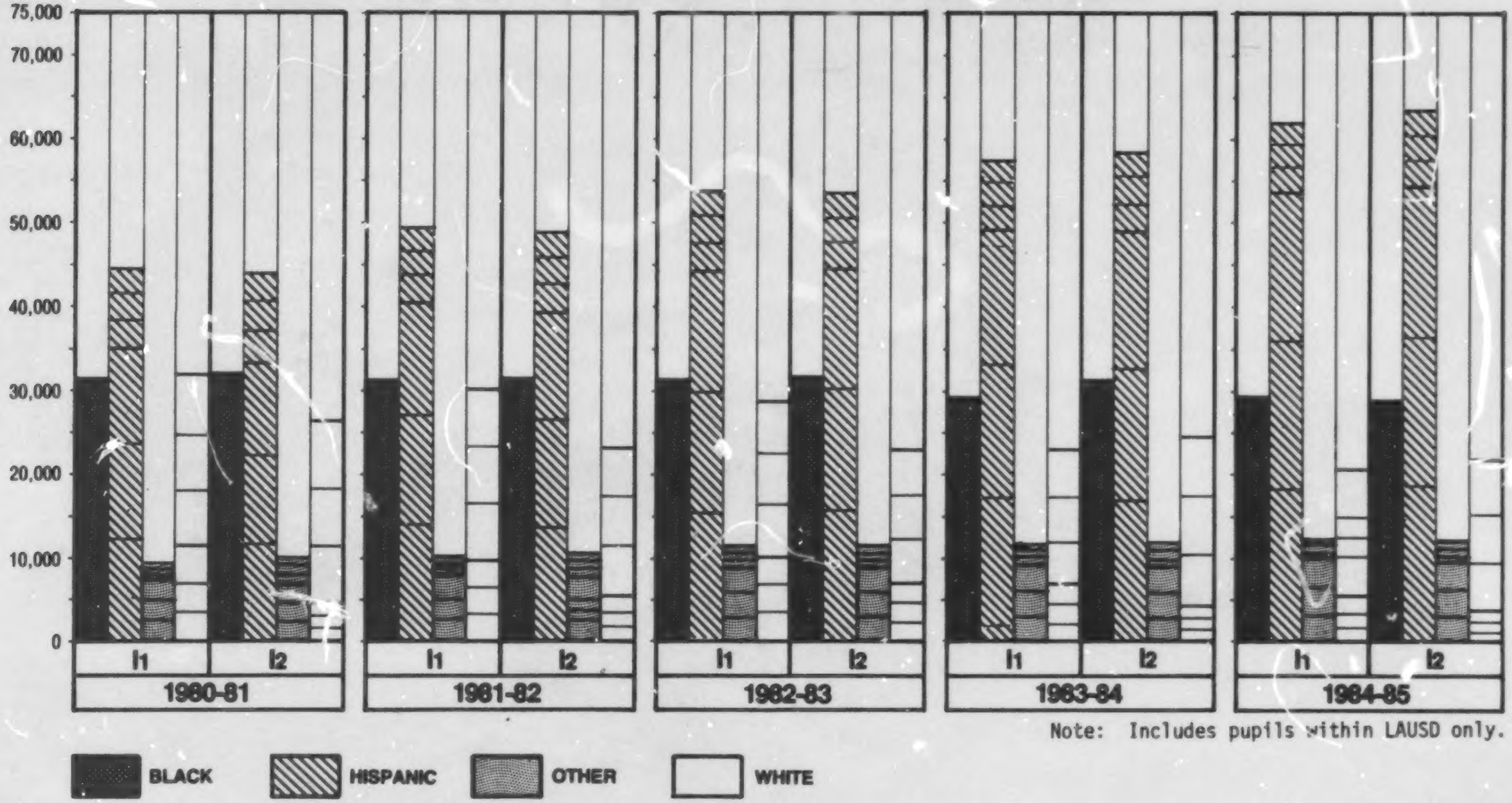


Note: Includes pupils within LAUSD only.

CHART 130

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED SEGREGATED AND DESEGREGATED JUNIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ETHNICITY AND GRADE, 1980-1985

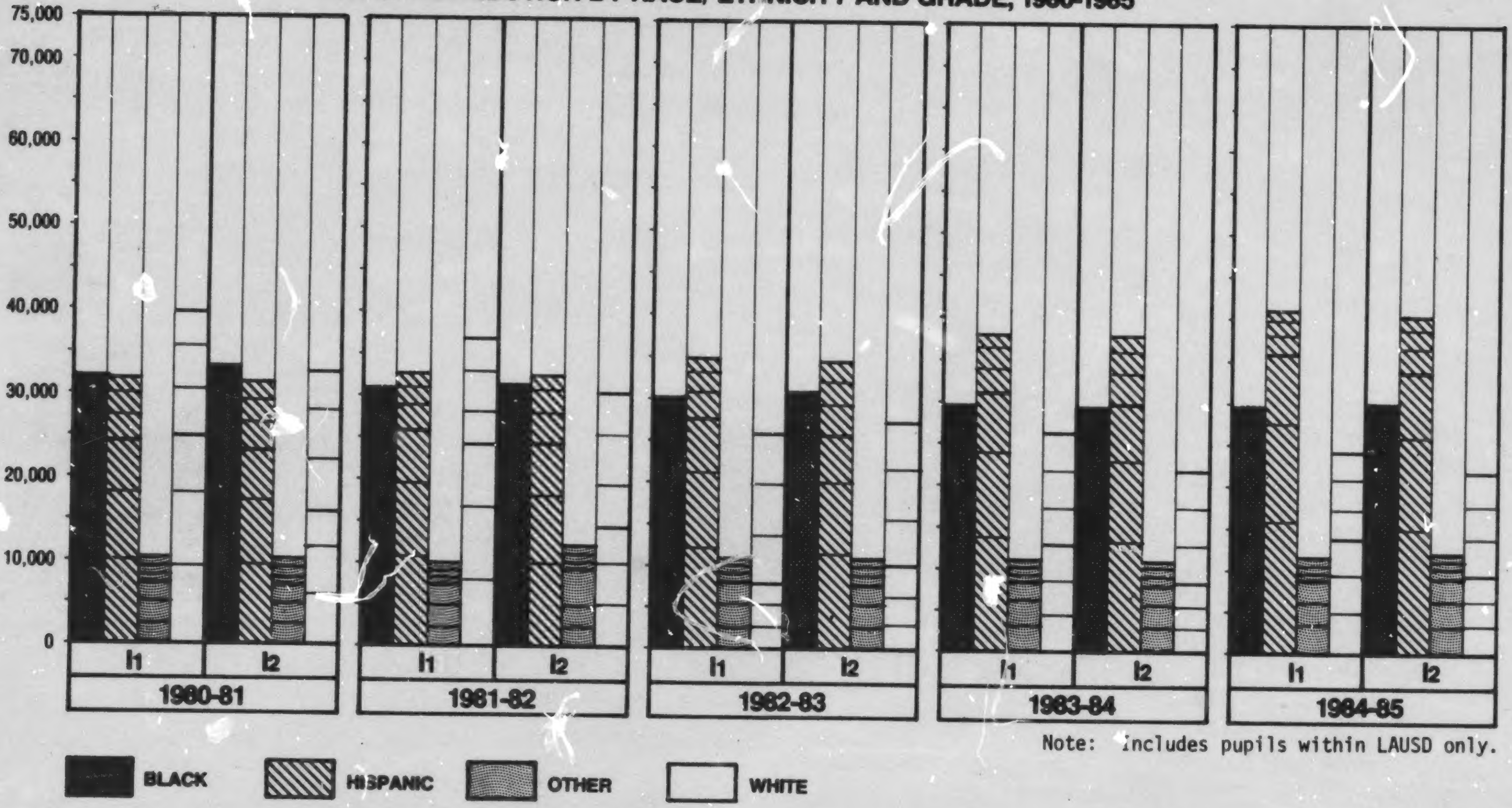


Note: Includes pupils within LAUSD only.

CHART 131

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED SEGREGATED AND DESEGREGATED SENIOR HIGH SCHOOL PUPIL DISTRIBUTION BY RACE/ ETHNICITY AND GRADE, 1980-1985



Note: Includes pupils within LAUSD only.

CHART 132

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED NUMBER OF ELEMENTARY SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	I1	I2	I1	I2	I1	I2	I1	I2	I1	I2
1980-81	8	0	28	1	139	177	52	51	230	222
1981-82	7	0	22	1	123	161	48	45	252	245
1982-83	7	0	12	1	114	134	46	57	276	255
1983-84	1	0	3	3	142	153	34	33	277	268
1984-85	0	0	3	1	123	131	34	32	297	293

NOTE: Magnet programs are counted as separate schools.

CHART 133

AREA RESOURCE UTILIZATION PLANS I1 AND I2
PROJECTED NUMBER OF JUNIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	I1	I2	I1	I2	I1	I2	I1	I2	I1	I2
1980-81	0	0	5	0	27	34	10	9	45	41
1981-82	0	0	3	0	25	26	12	12	48	44
1982-83	0	0	3	0	24	23	10	12	51	46
1983-84	0	0	2	0	24	28	5	5	56	55
1984-85	0	0	1	0	20	24	6	5	59	58

NOTE: Magnet programs are counted as separate schools.

CHART 134

AREA RESOURCE UTILIZATION PLANS I1 AND I2
PROJECTED NUMBER OF SENIOR HIGH SCHOOLS WITH VARYING MINORITY ENROLLMENTS, 1980-1985

	0-20% MINORITY		21-40% MINORITY		41-60% MINORITY		61-80% MINORITY		81-100% MINORITY	
	NUMBER OF SCHOOLS									
SCHOOL YEAR	I1	I2	I1	I2	I1	I2	I1	I2	I1	I2
1980-81	13	12	14	12	19	21	7	6	44	42
1981-82	13	12	14	10	18	21	7	6	45	43
1982-83	12	11	9	7	22	24	7	6	46	44
1983-84	10	10	6	4	23	26	9	9	47	45
1984-85	11	10	5	4	20	22	10	11	49	47

NOTE: Magnet programs are counted as separate schools.

CHART 135

AREA RESOURCE UTILIZATION PLAN II
PAIRS, CLUSTERS AND MIDSITES

1978-1985 CONTINUOUS

None

1980-1985 CONTINUOUS

Pairs:

Apperson - Brainard
Frost JHS - Maclay JHS

1980-1983 ONLY

Pairs:

Allesandro - Toluca Lake
*Ann - Cheremoya
*Bandini - 7th Street
Bassett - Noble
*Beachy - Plummer
Beckford - Vaughn
*Bellagio - Virginia
Braddock - Pacific Palisades
Brentwood Science - Broadway
*Broad Avenue - South Shores
*Brockton - Kenter Canyon
Saturn - Warner
Cabrillo - Leland
*Camellia - Chase
*Canoga Park - Hard
Canyon - Richland
Caroldale - Crestwood
Carpenter - Santa Monica
Carthay Center - Rosewood
*Castle Heights - Queen Anne
Castlebay Lane - Victory
*Chapman - Osage
Charnock - Fairburn
Clifford - Wonderland
*Cohasset - Haddon
Colfax - Delevan
*Crescent Heights - Westwood
*Dahlia Heights - Yorkdale
Dayton - Rio Vista
Dixie Canyon - Ramona
*Dyer - Tulsa
*El Dorado - Herrick
*Eshelman - Normont
*Fernangeles - Gledhill
*15th Street - Taper
*59th Street - Kentwood
Filmore - Vintage
Fries - Lomita Fund
Glenwood - Mt. View
*Grant - Saticoy
Area 7 Alternative - Mt. Washington
*Kittridge - Van Nuys
Knollwood - Osceola
Lanai - Sterry
Lankershim - Monlux
*Loyola Village - Paseo Del Rey
Marquez - Westminster
*Mar Vista - Palms
Montague - Prairie
Nestle - Sylvan Park
Anchorage - Short
*Parthenia - Vena
Playa Del Rey - Westport Heights
*Point Fermin - 232nd Place
Riverside - Van Ness
Roscoe - Sunland
Roscomare - Shenandoah
Selma - Sherman Oaks
*3rd Street - Wilshire Crest
*Emerson JHS - Webster JHS
*Le Conte JHS - Reed JHS
Mt. Gleason JHS - Pacoima JHS
*Revere JHS - Mark Twain JHS

*Hamilton SHS - University SHS
*Hollywood SHS - No. Hollywood SHS
Kennedy SHS - San Fernando SHS

Clusters:

Pacoima - Anatola - Balboa
Morningside - Andasol - Darby
Telfair - Gault - Van Gogh
San Fernando - Germain - Mayall
Sharp - Dearborn - Kester
O'Melveny - Granada - Lorne
Fenton - El Oro - Pinewood
* San Fernando JHS - Northridge JHS - Porter

Midsites:

Coldwater Canyon - Alexandria - Lemay
Burbank - Emelita - Lockwood
Oxnard - Hesby - Rosemont
Millikan JHS - De Portola JHS - Virgil JHS

1983-1985 ONLY

Pairs:

Anatola - Saticoy
Andasol - Osceola
Arminta - Dearborn
Balboa - Harding

Beachy - Germain
Beckford - Dyer
Bertrand - Kittridge
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calvert - Tulsa
Canfield - Warner
*Cantara - Fulbright
Canterbury - Topeka Drive
Canyon - Mar Vista
Carpenter - Selma
Castlebay Lane - Hubbard
Collier - Van Nuys
Darby - Gridley
*Devonshire - Rinaldi
Dixie Canyon - Melrose
El Dorado - Knollwood
El Oro - Stonehurst
Emelita - Vena
*Enadia - Highlander
Encino - Sylvan Park
*Erwin - Fernangeles
Eshelman - Lomita Fund
Fair - Sunland
Filmore - Valley Alternative
Garden Grove - Parthenia
Gardner - Wonderland
Hancock Park - Rosewood
Hart - Nevada
*Haskell - Superior
Hazeltine - Vanalden
Herrick - Prairie
Hesby - Valley View
Kenter Canyon - Marquez
Lanai - Richland
*Langdon - Melvin

Lankershim - Vintage
Laurel - Roscomare
Leland - South Shores
Lemay - Ranchito
Limerick - Noble
*Mt. View - Plainview
Napa - Sunny Brae
Newcastle - Plummer
Anchorage - Coeur D'Alene
Oxnard - Riverside
Pinewood - Roscoe
Sylmar - Van Gogh
Columbus JHS - Northridge JHS
De Portola JHS - Van Nuys JHS
*Fulton JHS - Sequoia JHS
*Henry JHS - Porter JHS
Lawrence JHS - San Fernando JHS
Mt. Gleason JHS - Sun Valley JHS
*Nobel JHS - Sepulveda JHS
*Birmingham SHS - Van Nuys SHS
Francis Poly SHS - Verdugo Hills SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Hollywood SHS

Midsites:

Cohasset - Camellia - Tarzana
Bassett - Capistrano - Vaughn
Granada - Chatsworth - Morningside
Gledhill - Fenton - Winnetka
Kester - Grant - Serrania

Valerio - Haddon - Nestle
Lorne - Oso - Pacoima
Chandler - Santa Monica - Wilbur
Millikan JHS - Hughes JHS - Le Conte JHS
*Kennedy SHS - Chatsworth SHS - No. Hollywood SHS

* means grouping would never be activated during projection period.

AREA RESOURCE UTILIZATION PLAN II
LIST OF LAUSD SENDING SCHOOLS

1980

Alta Loma
Ambler
Amestoy
Annalee
Annandale
Atwater
Avalon Gardens
Baldwin Hills
Barton Hill
Bonita
Broadacres
Buchanan
Carson
Catskill
Century Park
Cienega
Cimarron
City Terrace
Coliseum
Corona
Del Amo
Denker
Dolores
Dominguez
Dorris
Eastman
Elizabeth
Figueroa
Fishburn
Fletcher
Ford
4th Street
Gardena
Garvanza
Glassell Park
Glenfeliz
Grape
Gulf
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
La Salle
Leapwood
Liberty
Logan
Loma Vista
Manchester
Manhattan
Mayberry
Murchison
118th Street
186th Street
153rd Street
107th Street
135th Street
122nd Street
Park Avenue
Park Western
Purche
Ritter
Rockdale
Rowan
San Gabriel
Sierra Park
Sierra Vista
Stanford
State
Stoner
Towne
Tweedy
Van Deene
Victoria
Vine
West Athens
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Locke SHS
Los Angeles SHS
Marshall SHS
Washington SHS

1983

Allesandro
Ambler
Amestoy
Annalee
Atwater
Avalon Gardens
Bandini
Barton Hill
Beethoven
Bonita
Braddock
Broad Avenue
Broadacres
Broadway
Bryson
Cabrillo
Caroldale
Carson
Carthay Center
Catskill
Century Park
Chapman
Charnock
Cimarron
City Terrace
Crescent Heights
Del Amo
Delevan
Denker
Dolores
Dominguez
Eastman
Elizabeth
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Franklin
Fries
Gardena
Garvanza
Glassell Park
Glenwood
Grape
Gulf
Harbor City
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
Leapwood
Liberty
Loma Vista
Lorena
Los Feliz
Loyola Village
Manhattan
Montague
Murchison
98th Street
Normont
186th Street
156th Street
153rd Street
135th Street
122nd Street
Osage
Park Avenue
Park Western
Point Fermin
President
Purche
Rockdale
Rowan
San Gabriel
Sierra Park
Sierra Vista
Stanford
State
Taper
Towne
Tweedy
232nd Street
Meyler
Van Deene
Victoria
Victory
Vine
West Athens
White Point
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
Dodson JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Hamilton SHS
Locke SHS
Marshall SHS
Washington SHS
Westchester SHS

CHART 136

AREA RESOURCE UTILIZATION PLAN I2
PAIRS, CLUSTERS AND MIDSITES

1978-1985 CONTINUOUS

None

1980-1985 CONTINUOUS

Pairs:

Darby - Filmore

1980-1983 ONLY

Pairs:

Albion - Dixie Canyon
* Allesandro - Tulsa
* Ambler - Paseo Del Rey
Anatola - Brainard
* Ann - Chase
Annandale - Kester
Apperson - Sierra Vista
Atwater - Vintage
Balboa - Camellia
* Bandini - 7th Street
* Bassett - Dorris
* Beachy - Calahan
Beckford - Micheltorena
* Bellagio - 32nd Street
* Bertrand - Van Nuys
* Blythe - Lockwood
* Bonita - Westport Heights
Braddock - Lanai
Brentwood Science - Broadway
* Broad Avenue - Point Fermin
* Brockton - Kenter Canyon
Buchanan - Riverside
Saturn - Nestle
* Bushnell - Cheremoya
Cabrillo - Leland
Cahuenga - Wilbur
* Canoga Park - Hart
Canyon - Loyola Village
Capistrano - Noble
* Caroldale - South Shores
Carpenter - Soto
Carthay Center - Rosewood
* Castle Heights - 42nd Street
Castlebay Lane - Ramona
* Chapman - Osage
* Charnock - Oakdale Avenue
Chatsworth - Montague
* Cimarron - Westwood
* Clifford - Cohasset
Colfax - Rockdale
Coliseum - Encino
Collier - Crescent Heights
Collins - Selma
Crestwood - 232nd Place
* Dahlia Heights - Tweedy
Dayton - Prairie
Dearborn - Dyer
Delevan - Knollwood
Dolores - Fairburn
* El Dorado - Harrick
El Oro - Osceola
* Elysian - Rhoda
Emelita - Virginia
* Eshelman - Normont
Fenton - Nevada
Fernangeles - Topeka Drive
* 15th Street - Taper
59th Street - Sherman Oaks
Fletcher - Toluca Lake
Fries - Lomita Fund
Fullbright - Sterry
Garvanza - Pinewood
Gault - Playa Del Rey
Germain - Vaughn
* Gledhill - Sylvan Park
Glen Alta - Sunland
Glenfeliz - Wonderland
Glenwood - Lorne
Grant - Serrania
Area 7 Alternative - Ritter
Hesby - Yorkdale
* Kentwood - 186th Street
* Kittridge - Van Ness
* Lankershim - Shirley
* Latona - Saticoy
Lemay - Shenandoah
Limerick - O'Melveny
Marquez - Queen Anne
* Mar Vista - Vernon
Mayall - Roscoe
Mayberry - Vanalden
Monlux - Mt. Washington
Mt. View - San Pascual
Multnomah - Rio Vista
Newcastle - Rosemont
Anchorage - Van Deene
Pacific Palisades - Short
Palms - Valley Alternative
* Parthenia - Vena
* Plummer - Toland Way
* Richland - Tarzana
Roscomare - Solano
Santa Monica - Sunny Brae
* 3rd Street - Wilshire Crest
Topanga - Westminister
Van Gogh - Victory
Vine - Warner
Bancroft JHS - Frost JHS
Burbank JHS - Mt. Gleason JHS
* Carnegie JHS - Emerson JHS
Columbus JHS - San Fernando JHS
De Portola JHS - Marina Del Rey JHS
* Henry JHS - Le Conte JHS

*Irving JHS - Reed JHS
Lawrence JHS - Maclay JHS
*Mt. Vernon JHS - Revere JHS
*Nobel JHS - Pacoima JHS
Palms JHS - Sequoia JHS
*Porter JHS - Mark Twain JHS
*Sutter JHS - Webster JHS
*Birmingham SHS - Fairfax SHS
*Carson SHS - University SHS
Franklin SHS - Verdugo Hills SHS
Grant SHS - Lincoln SHS
*Hamilton SHS - Palisades SHS
*Hollywood SHS - No. Hollywood SHS
Kennedy SHS - San Fernando SHS
*Marshall SHS - Monroe SHS

Clusters:

Pacoima - Calabash - Reseda
Telfair - Andasol - Hamlin
Alexandria - Garden Grove - Melvin
Haddon - Devonshire - Oso
Morningside - Granada - Winnetka
San Fernando - Superior - Woodlake
Sharp - Clavert - Woodland Hills

Midsites:

Burbank - Cortez - Platt Ranch
Valerio - Enadia - Hobart
Hazeltine - 1st Street - Highlander
Chandler - Haynes - Union
Langdon - Hoover - Justice
Erwin - Lockhurst - Utah
Lassen - Logan - Pomelo
Liggett - Loreto - Welby
Millikan JHS - Adams JHS - Hughes JHS
Mulholland JHS - Hale JHS - Pastuer JHS
Sepulveda JHS - King JHS - Parkman JHS
Fulton JHS - Northridge JHS - Virgil JHS
Van Nuys SHS - Dorsey SHS - Reseda SHS
Francis Poly SHS - Granada SHS - Los Angeles SHS

1983-85 ONLY

Pairs:

Anatola - Langdon
Andasol - Osceola
Apperson - Rockdale
Arminta - Vintage
Balboa - Tulsa
Beachy - Topeka Drive
Beckford - Gridley
Beethoven - Marquez
Brainard - Sunland
Brentwood Science - Sterry
Brockton - Sherman Oaks
Calabash - Valley View
Calahan - Melvin
Calvert - Vena
Canfield - Warner
*Cantara - Fullbright
Canterbury - Limerick
Canyon - Kenter Canyon
*Capistrano - Ranchito
Carpenter - Oxnard
Castlebay Lane - Dyer
Charnock - Nestle
Chatsworth - San Fernando
Clover - Hesby
Collier - Richland
Collins - Hamlin
Dayton - Wilbur
Dearborn - Stonehurst
Dixie Canyon - Gardner
El Dorado - Knollwood
El Oro - Herrick
Emelita - Van Nuys
Enadia - Welby
Encino - Palms
*Erwin - Roscoe
Eshelman - Lomita Fund
Fernangeles - Germain

Garden Grove - Parthenia
Glenwood - Pinewood
Grand View - Lanai
Hancock Park - Roscomare
Harding - Vanalden
Hart - Nevada
Haskell - Platt Ranch
Haynes - Justice
Hazeltine - Valley Alternative
*Highlander - Rinaldi
Kittridge - Woodland Hills
Lankershim - Riverside
Laurel - Wonderland
Leland - South Shores
Lemay - Saticoy
Mar Vista - Anchorage
Melrose - Rosewood
*Mt. View - Plainview
Napa - Sunny Brae
Plummer - Prairie
Pomelo - Reseda
Coeur D'Alene - Topanga
Selma - Serrania
Sylmar - Van Gogh
De Portola JHS - Van Nuys JHS
Frost JHS - Porter JHS
Hale JHS - Sutter JHS
Lawrence JHS - Sepulveda JHS
Mt. Gleason JHS - Sun Valley JHS
Northridge JHS - Parkman JHS
*Canoga Park SHS - Monroe SHS
Chatsworth SHS - Francis Poly SHS
Granada Hills SHS - San Fernando SHS
Grant SHS - Van Nuys SHS
Hamilton SHS - Reseda SHS
Hollywood SHS - Taft SHS
No. Hollywood SHS - Verdugo Hills SHS

Midsites:

Birmingham SHS - El Camino Real SHS - Fairfax SHS

AREA RESOURCE UTILIZATION PLAN I2
LIST OF LAUSD SENDING SCHOOLS

1982

Alta Loma
Amestoy
Annalee
Avalon Gardens
Baldwin Hills
Barton Hill
Broadacres
Carson
Castelar
Catskill
Century Park
Cienega
City Terrace
Corona
Del Amo
Denker
Domiguez
Eastman
Elizabeth
Figueroa
Fishburn
Ford
4th Street
Gardena
Glassell Park
Grape
Gulf
Harrison
Hawaiian
Heliotrope
Hillcrest
Hillside
Humphreys
Hyde Park
Lane
Leapwood
Liberty
Loma Vista
Manchester
Manhattan
Monte Vista
Murchison
118th Street
153rd Street
109th Street
107th Street
135th Street
122nd Street
Park Avenue
Park Western
Purche
Rowan
San Gabriel
Sierra Park
Stanford
State
Stoner
Towne
Victoria
Weigand
West Athens
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Carver JHS
Clay JHS
Curtiss JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Markham JHS
Nightingale JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Crenshaw SHS
Gardena SHS
Garfield SHS
Locke SHS
Manual Arts SHS
Washington SHS

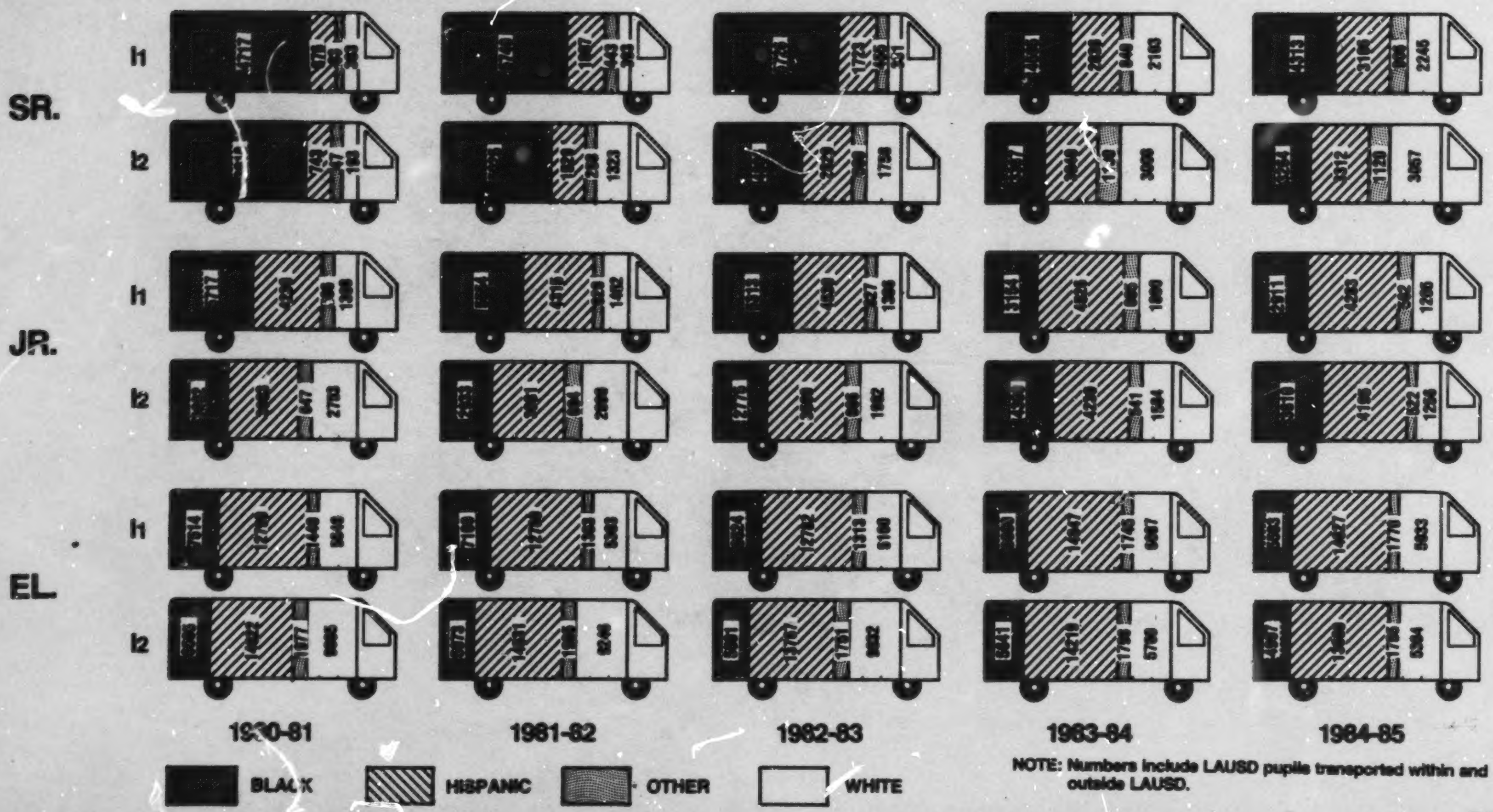
1983

Allesandro
Ambler
Amestoy
Annalee
Atwater
Avalon Gardens
Bandini
Barton Hill
Bonita
Braddock
Broad Avenue
Broadacres
Broadway
Bryson
Cabrillo
Camellia
Caroldale
Carson
Carthay Center
Catskill
Century Park
Chapman
Cimarron
City Terrace
Crescent Heights
Del Amo
Delevan
Denker
Dolores
Dominguez
Eastman
Elizabeth
Fair
15th Street
Figueroa
Fishburn
Fletcher
Ford
4th Street
Franklin
Fries
Gardena
Garvanza
Glassell Park
Grant
Grape
Gulf
Haddon
Harbor City
Harrison
Hawaiian
Heliotrope
Humphreys
Hyde Park
Lane
Leapwood
Liberty
Loma Vista
Lorena
Loyola Village
Manhattan
Murchison
98th Street
Normont
186th Street
156th Street
153rd Street
135th Street
122nd Street
Osage
Park Avenue
Park Western
Point Fermin
President
Purche
Rowan
San Gabriel
San Pascual
Shenandoah
Sierra Park
Sierra Vista
Stanford
State
Taper
Towne
Tweedy
232nd Place
Meyler
Van Deene
Victoria
Victory
Walgrove
West Athens
White Point
Wilmington
Woodcrest
Woodlawn
Belvedere JHS
Burbank JHS
Carnegie JHS
Carver JHS
Clay JHS
Curtiss JHS
Dodson JHS
El Sereno JHS
Gage JHS
Gompers JHS
Griffith JHS
Hollenbeck JHS
Irving JHS
King JHS
Markham JHS
Nimitz JHS
Peary JHS
South Gate JHS
Stevenson JHS
White JHS
Wilmington JHS
Banning SHS
Bell SHS
Carson SHS
Dorsey SHS
Gardena SHS
Garfield SHS
Locke SHS
Marshall SHS
Venice SHS
Washington SHS
Westchester SHS

CHART 137

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED TOTAL NUMBER AND DISTRIBUTION OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985

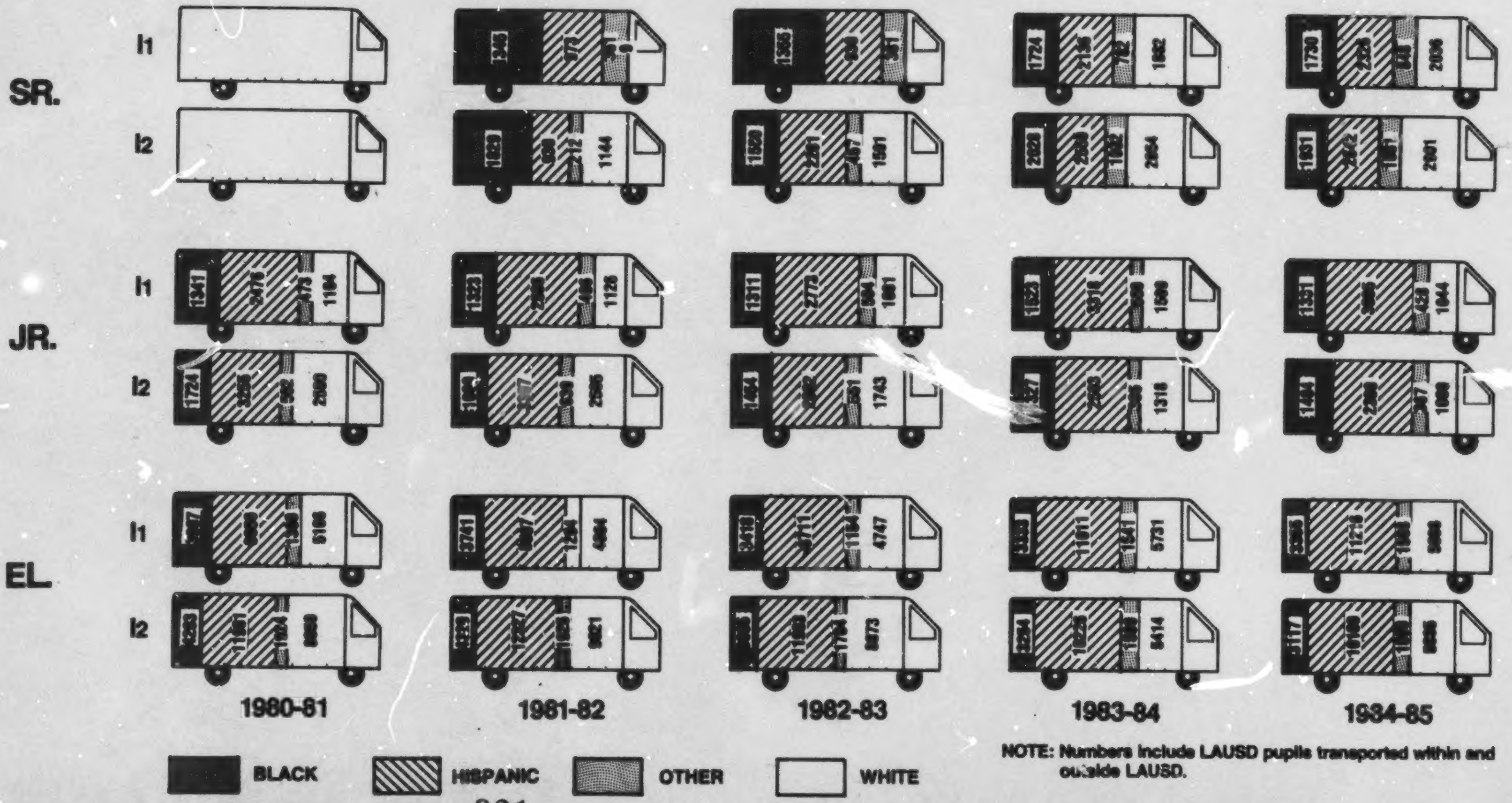


NOTE: Numbers include LAUSD pupils transported within and outside LAUSD.

CHART 138

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED NUMBER AND DISTRIBUTION OF PUPILS MANDATORILY TRANSPORTED BY RACE/ETHNICITY AND LEVEL, 1980-1985

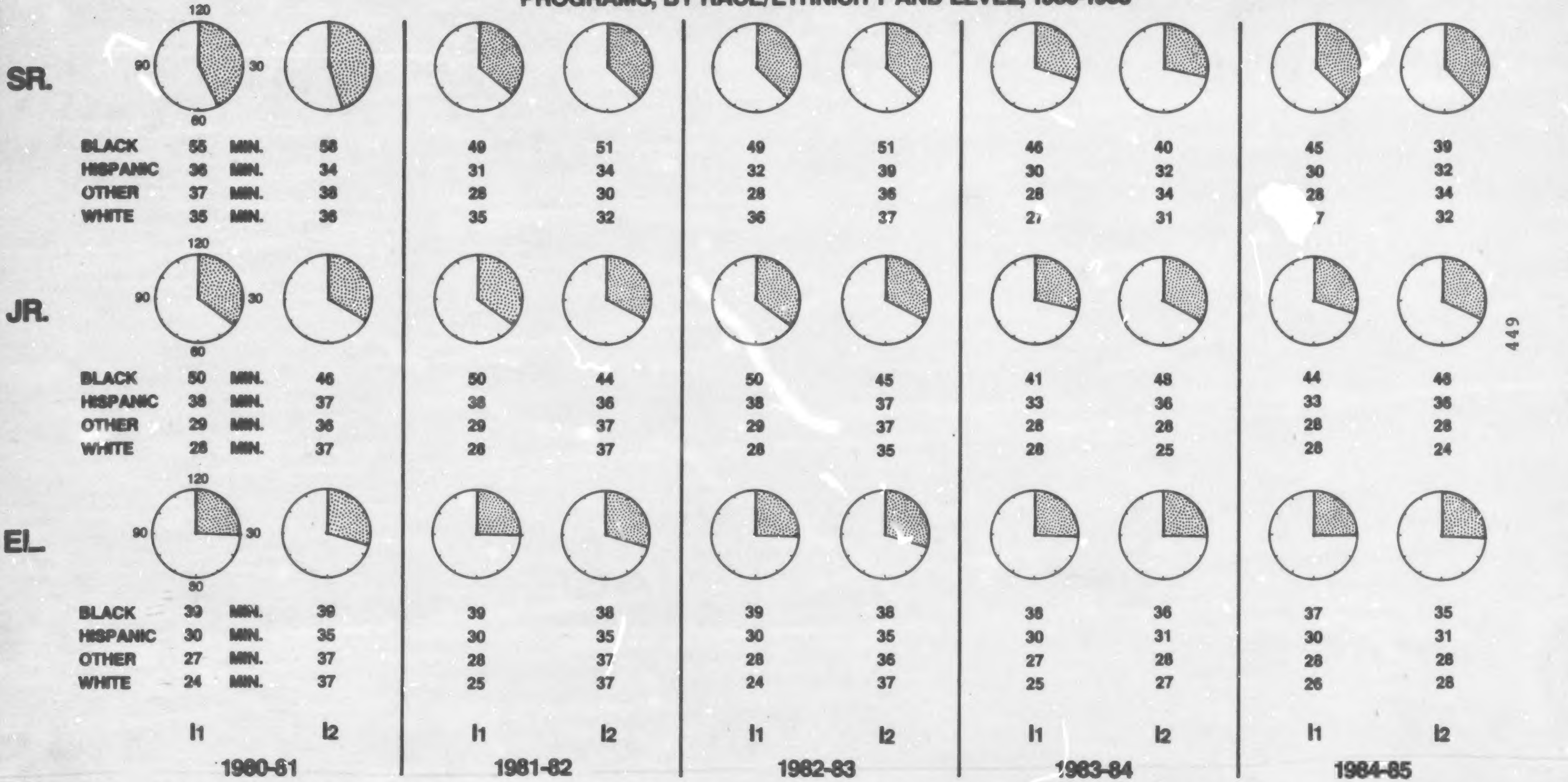


NOTE: Numbers include LAUSD pupils transported within and outside LAUSD.

CHART 139

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS TRANSPORTED IN ALL PROGRAMS, BY RACE/ETHNICITY AND LEVEL, 1980-1985



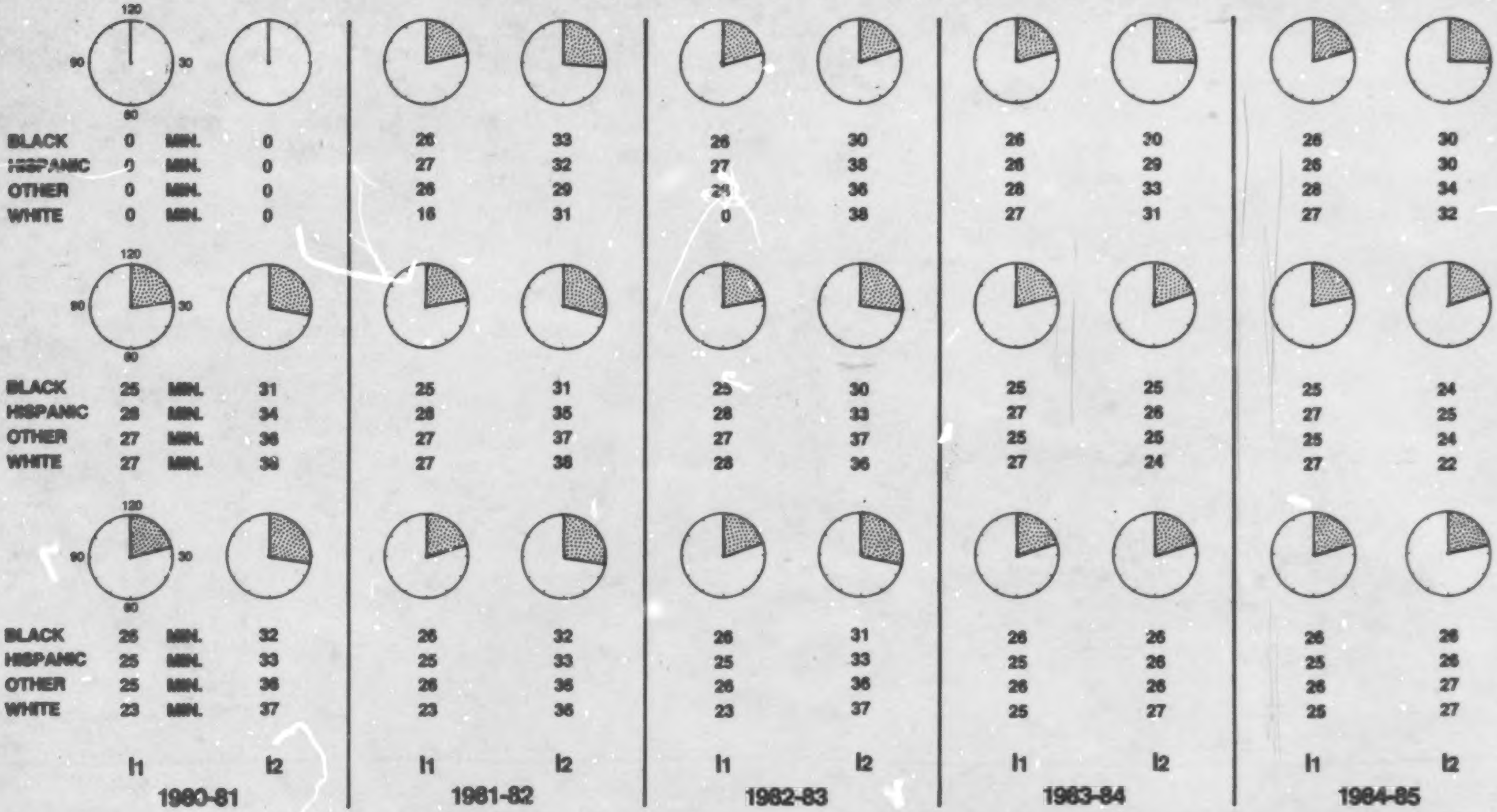
	1980-81 I1	1980-81 I2	1981-82 I1	1981-82 I2	1982-83 I1	1982-83 I2	1983-84 I1	1983-84 I2	1984-85 I1	1984-85 I2
SR.										
BLACK	55 MIN.	58	49	51	49	51	46	40	45	39
HISPANIC	36 MIN.	34	31	34	32	39	30	32	30	32
OTHER	37 MIN.	38	28	30	28	36	28	34	28	34
WHITE	35 MIN.	36	35	32	36	37	27	31	[illegible]	32
JR.										
BLACK	50 MIN.	46	50	44	50	45	41	48	44	46
HISPANIC	38 MIN.	37	38	36	38	37	33	36	33	36
OTHER	29 MIN.	36	29	37	29	37	28	28	28	28
WHITE	28 MIN.	37	28	37	28	35	28	25	28	24
EL.										
BLACK	39 MIN.	39	39	38	39	38	38	36	37	35
HISPANIC	30 MIN.	35	30	35	30	35	30	31	30	31
OTHER	27 MIN.	37	28	37	28	36	27	28	28	28
WHITE	24 MIN.	37	25	37	24	37	25	27	26	28

NOTE: Numbers include travel time for LAUSD pupils transported within and outside LAUSD.

CHART 140

AREA RESOURCE UTILIZATION PLANS I1 AND I2

PROJECTED AVERAGE TRAVEL TIMES OF PUPILS MANDATORILY TRANSPORTED, BY RACE/ETHNICITY AND LEVEL, 1980-1985



Level	Race/Ethnicity	1980-81 I1		1980-81 I2	1981-82 I1	1981-82 I2	1982-83 I1	1982-83 I2	1983-84 I1	1983-84 I2	1984-85 I1	1984-85 I2
SR.	BLACK	0	MIN.	0	26	33	26	30	26	30	26	30
	HISPANIC	0	MIN.	0	27	32	27	38	26	29	26	30
	OTHER	0	MIN.	0	26	29	28	36	28	33	28	34
	WHITE	0	MIN.	0	16	31	0	38	27	31	27	32
JR.	BLACK	25	MIN.	31	25	31	25	30	25	25	25	24
	HISPANIC	28	MIN.	34	28	35	28	33	27	26	27	25
	OTHER	27	MIN.	36	27	37	27	37	25	25	25	24
	WHITE	27	MIN.	39	27	38	28	36	27	24	27	22
EL.	BLACK	26	MIN.	32	26	32	26	31	26	26	26	26
	HISPANIC	25	MIN.	33	25	33	25	33	25	26	25	26
	OTHER	25	MIN.	36	26	36	26	36	26	26	26	27
	WHITE	23	MIN.	37	23	36	23	37	25	27	25	27

NOTE: Numbers include travel time for LAUSD pupils transported within and outside LAUSD.

VIII. SUMMARY OF FINDINGS

Quantifiable Effects of the Prototypes

The table below presents the range of effects in each area of quantifiable results that would be created by the variations on each prototype that have been simulated in this series. The low number in each range is the lowest absolute and percentage quantity generated by any variation of the subject prototype, first in 1980-81 and then at the end of the period in 1984-85. The high number is the highest quantity generated in each year. Thus, the ranges include the maximum and minimum effects that would be produced with respect to each type of result by each of the four prototypes. By and large, these ranges are quite narrow, meaning that the differences between the variations are not enormously significant when viewed from an overall perspective. They present, therefore, a picture of the differential effects of the four approaches to desegregation of the LAUSD that does not require lengthy explanation to render it comprehensible. The reader is invited to make his own comparisons and draw his own inferences.

Generalizations Applicable to All Prototypes

The following findings seem to emerge with regard to all four of the prototypes simulated, at least insofar as these 17 variations satisfactorily express them:

1. None except the multi-ethnic (which re-defines "Desegregated") would be capable of producing a proportion of Desegregated schools larger than 37% in 1980-81, or 28% in 1984-85. The multi-ethnic prototype could yield a proportion of 45% that meets its definition in 1980-81, but this share would fall to 25% in 1984-85. All prototypes would have their maximum desegregating effects in the first year of application; all would then lose substantial ground to the demographic change projected for the period, although the decline in their effectiveness would often be uneven from year to year.

SUMMARY OF OUTER BOUNDS OF QUANTIFIABLE RESULTS, ALL PROTOTYPES*

	ALL VOLUNTARY		VOLUNTARY/ MANDATORY		MULTI-ETHNIC		AREA RESOURCE UTILIZATION	
	1980-81 Range	1984-85 Range	1980-81 Range	1984-85 Range	1980-81	1984-85	1980-81 Range	1984-85 Range
Pupil Flight	0-44,000 0-8%	0-32,000 0-5%	24,000-71,000 4-12%	25,000-54,000 4-9%	106,000 18%	88,000 15%	58,000-81,000 9-14%	51,000-68,000 9-11%
Total Enrollment	535,000-579,000	565,000-597,000	508,000-555,000	543,000-572,000	473,000	509,000	498,000-529,000	529,000-546,000
Desegregated Schools	120-140 18-21%	99-111 15-16%	155-245 24-36%	143-180 22-27%	273 45%	152 25%	185-246 28-37%	158-185 24-28%
Segregated Schools								
RIWS	54-128	54-62	25-100	15-79			25-76	15-27
RIMS	409-494	480-494	382-405	405-473			393-400	464-472
Total	514-537 78-82%	542-548 83-85%	407-504 63-76%	466-513 72-78%	328 55%	449 75%	[illegible]-475 63-72%	461-499 72-75%
Desegregated Pupils	109,000-118,000 19-22%	81,000-88,000 14-15%	125,000-168,000 23-32%	110,000-123,000 20-22%	209,000 56%	115,000 23%	137,000-172,000 26-33%	115,000-127,000 22-23%
Segregated Pupils	417,000-470,000 78-81%	483,000-508,000 85-86%	348,000-431,000 68-78%	422,000-462,000 78-81%	264,000 44%	394,000 77%	338,000-384,000 68-74%	403,000-422,000 76-78%
Magnet Pupils								
Desegregated	2,045-2,461 22-24%	1,499-1,828 19-21%	760-3,676 14-30%	777-2,492 13-22%			1,200-4,000 22-47%	600-3,000 12-25%
Segregated	7,475-7,912 76-78%	6,759-7,198 80-82%	4,590-8,712 70-86%	5,611-8,654 78-88%			2,800-9,000 53-75%	4,200-9,000 75-88%
Total	9,520-10,373	8,258-9,026	5,350-12,388	6,409-11,110	0	0	4,400-13,000	4,800-12,000
PWT Pupils	19,000-20,000	15,000	9,779-21,000	7,809-17,000	0	0	10,000-20,000	8,000-17,000
Pupils Transported								
Voluntary	29,000-30,000 100%	23,000-24,000 100%	15,000-32,000 37-94%	14,000-28,000 42-90%	0	0	13,000-32,000 27-64%	13,000-28,000 27-55%
Mandatory	0 0%	0 0%	2,000-26,000 6-63%	3,000-19,000 10-47%	139,000	123,000	17,000-35,000 34-73%	23,000-35,000 45-73%
Total	29,000-30,000	23,000-24,000	34,000-47,000	31,000-36,000	139,000	123,000	45,000-56,000	47,000-52,000
Average Travel Times (in minutes)								
Overall	44-45	48-49	40-42	36-44	32	32	37-39	31-38
Black	50-51	54-55	48-52	48-52	31	32	44-47	40-45
Hispanic	39	43-55	36-39	35-41	30	30	32-36	31-35
Other Minority	40	40-41	32-41	32-39	30	32	28-37	28-30
White	35	34-35	26-37	27-33	43	45	28-37	26-33

*Percentages may not be associated with absolute numbers adjacent.

2. No prototype other than the multi-ethnic would create a desegregated school setting for more than 33% of LAUSD pupils in 1980-81, or 23% in 1984-85. The multi-ethnic prototype could create such settings, according to its own definition, for 56% of the pupils in 1980-81 but for only 23% in 1984-85.

3. All prototypes would accomplish their school desegregation effects primarily by reducing the number of Racially Isolated White Schools; no prototypes would greatly affect or reverse the growth in the number of Racially Isolated Minority Schools. (The multi-ethnic prototype does not recognize this form of classification of schools, but would certainly have more effect on RIMS pupils than the others.)

4. Under prototypes that permit Magnet schools (which excludes the multi-ethnic variation simulated), few Magnets will form if it is required that new ones meet the "Desegregated" criterion. If those of the current crop which contain at least 10% each of White and Combined Minority pupils are permitted to endure, they will constitute the bulk of the Magnet school population throughout the period, and that population will be heavily Minority and 75-88% Segregated in 1984-85.

5. Fifteen-minute differences in travel time ceilings on mandatory transportation, while important in the first two years of the period, never affect overall travel time averages very significantly, and by the fourth year lose most capacity to distinguish the results of variations that do not otherwise differ. (The ceilings do not apply in the all-voluntary and multi-ethnic prototypes.)

6. Under all prototypes except the multi-ethnic, Black pupils would experience significantly longer average travel times, and White pupils significantly shorter ones, than other racial/ethnic groups. Under the multi-ethnic prototype, Whites would have significantly higher travel times than other groups, all of which would be about equal in this regard.

Responses to the Task Questions

The following are summary responses to the basic questions put to the consultants in the Court's charge to prepare this series of simulations. The questions are listed in Part I. They are answered here in unelaborated form. The documentation behind each response is to be found in Parts III-VII of this Report.

Question 1: What would have been the results of the underlying demographic shifts in the LAUSD area if the question of mandatory pupil transfer had never arisen?

The baseline projection made herein suggests a demographically-shaped LAUSD with the following essential characteristics:

-- A total enrollment of 579,000 in 1980-81 rising to 597,000 in 1984-85.

-- A total of 65 (or 11%) Desegregated schools in 1980-81, falling to 63 (still 11%) in 1984-85.

-- A total of 536 (or 89%) Segregated schools in 1980-81, rising to 538 (or 90%) in 1984-85.

-- A total of 63,000 pupils (or 11%) in Desegregated schools in 1980-81, falling to 54,000 (or 9%) in 1984-85.

-- A total of 516,000 pupils (or 89%) in Segregated schools in 1980-81, rising to 542,000 (or 91%) in 1984-85.

Question 2: What would be the results of installation of an all-voluntary prototype?

If the Plan installed had the characteristics of the variation simulated herein, it would generate the following general results:

-- A total enrollment ranging from 535,000 (if the 1978-80 "fleers" did not return) to 579,000 in 1980-81, rising to 565-597,000 in 1984-85.

-- A total of 120-140 Desegregated schools (or 18-21% of all schools) in 1980-81, falling to 99-111 (or 15-16%) in 1984-85.

-- A total of 514-537 Segregated schools (or 79-82% of all schools) in 1980-81 rising to 542-548 (or 84-85%) in 1984-85.

-- A total of 109-118,000 pupils (or 19-22%) in Desegregated schools in 1984-85, falling to 81-88,000 pupils (or 14-15%) in 1984-85.

-- A total of 417-477,000 pupils (or 78-81%) in Segregated schools in 1980-81, rising to 483-508,000 (or 84-85%) by 1984-85.

-- A total of 29-30,000 pupils transported, all of them voluntarily, in 1980-81, falling to 23-24,000 by 1984-85.

Ironically, the numbers of Desegregated schools that would be achieved by such a prototype would relate inversely to the number of returned "fleers" during the first three years. The more returnees, the fewer Desegregated schools. In later years, however, a large number of returnees would help to retard, but not to reverse the steady downward slide in the number of such schools.

The Magnet and PWT programs would shrink gradually over the period under this prototype, moving the number of pupils transported down by about 20% during the five years. The racial/ethnic makeup of those transported would be more than 90% Minority, with the White share falling steadily. However, the number of White pupils in the system would be as high as demographic forces (and the decision of 1978-80 "fleers") would permit.

Question 3: What would be the results of installation of a voluntary/mandatory prototype with alternative travel time ceilings?

Assuming that the Plan had the general characteristics of the variations simulated herein, it would produce an LAUSD with the following basic outline:

-- Total enrollment of 508-555,000 in 1980-81, rising to 543-572,000 in 1984-85. This would reflect pupil flight of 24-71,000 (or 4-12%) in 1980-81, and 25-54,000 (or 4-7%) by 1984-85.

-- A total of 155-245 Desegregated schools (or 24-36% of all schools) in 1980-81, dropping to 143-180 (or 22-27%) in 1984-85.

-- A total of 407-504 Segregated schools (or 63-76% of all schools) in 1980-81, rising to 406-513 (or 72-78%) in 1984-85.

-- A total of 125,000-168,000 pupils (or 23-32% of all pupils) in Desegregated schools in 1980-81, falling to 110-123,000 (or 20-22%) in 1984-85.

-- A total of 348-462,000 pupils (or 68-81%) in Segregated schools in 1980-81, rising to 422-462,000 (or 78-81%) in 1984-85.

-- A total of 34-47,000 pupils transported, 2-26,000 of them mandatorily, in 1980-81. By 1984-85 the total would be 31-36,000 of which 3-19,000 would be mandatorily transported.

As noted above, a 15-minute difference in travel time ceiling would have a significant depressing effect on desegregation during the first three years, but this would largely disappear -- in terms of numerical aggregates, if not in the situations of particular schools or pupils -- by the latter part of the period.

Lower time ceilings on the mandatory portion of a voluntary/mandatory variation of the types simulated do not lower the number of pupils transported or the average time that they are transported in any lasting way; over the full period they may actually increase these items.

Within the range of desegregation results achievable, the major difference between the high and low ends is made by the decision whether to permit pupils to be exempted from mandatory transportation by successful application to a voluntary program. As between the voluntary programs (Magnet and PWT) PWT is more critical to the impact of this decision if, as in these simulations, formation of a new Magnet requires that its enrollment be Desegregated.

Mandatory linkages between schools (Pairs/Clusters/Midsites) have a very short average life if they are to represent mathematically optimal combinations designed to desegregate the maximum number of schools possible. Flight and demographic change also make many of them subject to full or partial deactivation after announcement if one assumes that no mandatory transportation will be engaged in that does not desegregate at least one school. The result, is a much larger number of announced than activated groupings, and heavy traffic of groupings out of active status each year. Groupings are particularly vulnerable when both voluntary program pupil exemption and a lowered travel time ceiling are put into effect simultaneously.

Question 4: What would be the results of installation of a multi-ethnic prototype?

If the Plan had the characteristics of the variation simulated herein, the LAUSD would take on the following general shape:

-- Total enrollment of 473,000 in 1980-81, rising to 509,000 in 1984-85. This would reflect pupil flight of 106,000 (or 18%)

in 1980-81, and 88,000 (or 15%) in 1984-85.

- A total of 273 Desegregated schools (by the multi-ethnic definition) in 1980-81, comprising 45% of all schools. This total would fall to 152 (or 25%) in 1984-85.
- A total of 328 Segregated schools (or 55% of all schools), in 1980-81, rising to 449 (or 75%) in 1984-85.
- A total of 209,000 pupils in Desegregated schools (by the multi-ethnic definition) in 1980-81, which would represent 56% of all pupils. This total would fall to 115,000 pupils (or 23%) in 1984-85.
- A total of 264,000 pupils (or 44%) in Segregated schools in 1980-81, rising to 394,000 (or 72%) in 1984-85.
- A total of 139,000 pupils transported, all of them mandatorily, in 1980-81, falling to 123,000 in 1984-85.

Although many more pupils would be transported -- all of them mandatorily -- under this prototype, they would travel for significantly shorter average times. About six in ten Desegregated schools would be bi-ethnic, the remainder multi-ethnic. Although the original pupil assignments would be so designed as to desegregate all schools if the assignments were carried out, pupil flight and demographic change would prevent more than half of the schools from achieving this status even in the first year. In later years the fraction would be smaller, except for the first year after each general revision of all pupil assignments. Over time, the most numerous Desegregated bi-ethnic regime would be the Black-Hispanic school, with the Black-White Desegregated school almost completely disappearing and the Hispanic-White configuration diminishing rapidly. By far the most traveled racial/ethnic group would be pupils who are members of Other Minorities.

Question 5: What would be the results of installation of an area-wide resource utilization prototype?

Should the Plan installed have the characteristics of the variations simulated herein, one could expect results in the LAUSD on the order of the following:

-- Total enrollment of 498-529,000 in 1980-81, rising to 529,546,000 in 1984-85. This would reflect pupil flight of 58-81,000 (or 10%) in 1980-81 (or [illegible]%) and 51-68,000 (or 9-11%) in 1984-85.

-- A total of 185-246 Desegregated schools (or 28-37% of all schools) in 1980-81, falling to 158-185 (or 24-28%) in 1984-85.

-- A total of 396-475 Segregated schools (or 63-72% of all schools) in 1980-81, rising to 461-499 (or 72-75%) in 1984-85.

-- A total of 137-172,000 pupils in Desegregated schools (inside or outside the LAUSD) in 1980-81, which would comprise 26-33% of all LAUSD pupils. The total in Desegregated schools would fall to 115-127,000 (22-23%) in 1984-85.

-- A total of 338-384,000 pupils in Segregated schools (inside or outside the LAUSD) in 1980-81, which would account for 68-74% of all pupils. The total in Segregated schools would rise to 403-422,000 (or 76-78%) in 1984-85.

-- A total of 45-56,000 pupils transported, 17-35,000 of them mandatorily, in 1980-81. This range would narrow to 47-52,000 (23-35,000 manditorily) in 1984-85.

None of the variations simulated would result in significant additions to the number of Desegregated LAUSD schools that would result from the intra-District variations upon which each area-wide approach was imposed. Their major effect would be to transport increasing numbers of Minority pupils from RIMS to surrounding districts, leaving their home schools Segregated, but smaller. About two-thirds of the LAUSD pupils so transported would be attending schools segregated in the opposite direction from their own races/ethnicities; the other one-third would be attending Desegregated suburban schools.

As demography eroded the effectiveness of intra-District mandatory desegregation devices, these variations would expand the numbers of pupils transported out of the District. This would be sufficient to offset some but not all of the waning of the capacity of the associated intra-District desegregation efforts. The result would be a reasonably stable number of pupils transported, but a declining share of LAUSD pupils attending Desegregated schools.

Utility of Projections

All of these results should be reviewed in the light of the constraints on the simulation process discussed in Part I. Many more prototypes may be devised, and an infinite number of variations may be devised within each. Each of these would, in turn, yield somewhat different results in all of the areas identified above.

It is the consultant's belief, however, that this series of simulations provides as accurate a general sense of the kinds of results likely to be achieved by each prototype as could be acquired within the time and data constraints placed on the project. We believe the reader is afforded a documented perception of the direction and order of magnitude of effects that would flow from each prototype simulated. Even more important, we believe there now exists a computerized analytic capacity to test variations on these or other prototypes with as much accuracy as historically-based data can generate.

IX. POSSIBLE NEXT STEPS

The objective of this project was not only to simulate the effects of the four prototypes suggested. It was also to create an analytic framework, a data base, and the computer software required to make possible the subsequent simulation of any range of further prototypes and/or variations that the Court may instruct. This basic task has been performed. Next steps, if any, depend on whether new simulations or further refinements and corrections of the ones presented in this Report would be useful as the proceedings move ahead. The consultants offer no judgment or recommendation on this question.

If further simulations are desired, however, three major improvements could be made in the data base upon which the projections are based:

- -- The pre-1975 PWT enrollments could be traced back to their home school areas and removed from the "resident" populations of the schools to which they are inaccurately assigned in the current data file.
- -- A school-by-school review of actual physical capacity could be conducted, in order to add to the realism of the current capacity limit on enrollment in each school.
- -- If further work involving non-LAUSD areas is directed, detailed data could be gathered on schools in those areas of a similar level of detail to that available for the LAUSD.

The consultants would recommend that consideration be given to allowing time and resources to be made available for these improvements if more refined and reliable school-by-school results are required.

However, simulations of the same order of reliability as this one can now be performed quite quickly, upon order of the Court. Any parameter, any decision rule, any assumption can be set at whatever level is desired for subsequent projections. Some changes would require more retooling than others, but the model and its components are designed to make this adaptation as fast and simple as is technically possible.

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